149 U.S. 785

1339 Apparently not reported, up to 151 U.S.

TRANSCRIPT OF RECORD.

UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SECOND CIRCUIT.

OCTOBER TERM, 1892.

No. 118.

THE SAWYER-MAN ELECTRIC COMPANY, APPELLANT,

vs.

THE EDISON ELECTRIC LIGHT COMPANY AND THE EDISON GENERAL ELECTRIC COMPANY.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF NEW YORK.

FILED

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1 *Notice.*

Circuit Court of the United States, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

Please take notice, that upon the bill of complaint, and upon the affidavits of John W. Howell, Francis R. Upton, Thomas A. Edison, George F. Barker, Jacob H. Herrick, and Walter K. Griffin, and the patents, papers and documents therein referred to, with copies of which you are herewith served, and upon the record made for final hearing, now remaining on file in the office of the clerk of this court, in the case of The Edison Electric Light Company *vs.* The United States Electric Lighting Company (in equity No. 3445) and upon such other papers and affidavits as may hereafter be served, we shall apply to this honorable court, or one of the
2 judges thereof, at the court-rooms of this court in the city of New York, on the 4th day of November, 1892, on the opening of the court on that day, or as soon thereafter as counsel can be heard, for a preliminary or provisional injunction pursuant to the prayer of the bill, or for such other and further relief as to the court may seem just.

Yours, &c.,
DYER & SEELY,
Complainants' Solicitors, 36 Wall Street, New York City.

Dated October 29, 1892.

To the defendant and its solicitor:

The exhibit lamps referred to in the affidavits of John W. Howell, Francis R. Upton and George F. Barker may be seen at our office.
DYER & SEELY.

Received copy October 29, 1892.
KERR & CURTIS,
Solicitors for Defendant.

3 *Bill of Complaint.*

To the honorable the judges of the circuit court of the United States for the southern district of New York:

Edison Electric Light Company, a corporation duly organized and existing under and by virtue of the laws of the State of New York, and having its principal place of business in the city of New York, and the Edison General Electric Company, a corporation likewise organized and existing under the laws of the State of New York, and having its principal place of business in the city of New York, brings this their bill of complaint against the Sawyer-Man

Electric Company, a corporation likewise organized and existing under the laws of the State of New York, and having its principal place of business in the city of New York.

And thereupon your orators complain and say:

Heretofore, and in the year 1878, the Edison Electric Light Company was duly formed and organized as a corporation under and pursuant to the laws of the State of New York.

Thereafter, and in the year 1881, the Edison Company for Isolated Lightning was duly organized as a corporation under and pursuant to the laws of the State of New York.

Thereafter, and under and pursuant to chapter 367 of the Laws of the State of New York, passed on the 28th day of May, 1884, and entitled "An act to authorize the consolidation of manufacturing corporations," the said The Edison Electric Light Company and the said The Edison Company for Isolated Lightning were duly merged and consolidated, with all the rights and privileges in said act specified, into and thereby became a new corporation under the name of Edison Electric Light Company, one of your orators herein; and said Edison Electric Light Company thereby became and was and now is a body politic and corporate under and pursuant to the laws of the State of New York.

4 As your orators are informed and believe, prior to the fourth day of November, 1879, Thomas Alva Edison, a citizen of the United States, then residing at Menlo Park, in the county of Middlesex and State of New Jersey, now of Lewellyn Park, in the county of Essex in said State, was the true, original and first inventor of a certain new and useful improvement in electric lamps, which was not known or used in this country and was not patented or described in any printed publication in this or any foreign country before his invention or discovery thereof, and which was not in public use or on sale more than two years prior to his application for letters patent of the United States therefor, and did on said fourth day of November, 1879, apply to the Commissioner of Patents of the United States for letters patent for said invention or improvement and fully and in all respects complied with all the requirements of the law in that behalf, and especially made oath that he verily believed himself to be the true, original and first inventor of the said improvement, and also paid into the Treasury of the United States the fees required by law, and presented to the said Commissioner of Patents a petition setting forth his desire to obtain an exclusive property in said improvement, and praying that letters patent might for that purpose be granted unto him; and also delivered and filed in said office of the Commissioner of Patents a written description of his said improvement in such full, clear and exact terms as to enable any person skilled in the art with which the said improvement is most nearly connected to make and use the same, which description was duly signed by the said Thomas Alva Edison and attested by two witnesses.

Due examination was made as to the novelty and utility of the said invention or improvement by the Commissioner of Patents, as provided by law, and the said Thomas Alva Edison was adjudged

to be entitled to letters patent for said invention or improvement, and thereupon the said Commissioner of Patents caused letters patent, bearing date the 27th day of January, 1880, and numbered 223,898, to be made out, issued and delivered to the said
5 Thomas Alva Edison, in due form of law in all respects, in the name of the United States of America, and under the seal of the Patent Office of the United States, and which said letters patent were signed by the Secretary of the Interior of the United States and countersigned by the Commissioner of Patents; and the said letters patent did grant to the said Thomas Alva Edison, his heirs or assigns, for the term of seventeen years from the date thereof, the exclusive right to make, use and vend the said invention throughout the United States and the territories thereof, as by a certified copy of said letters patent in court to be produced will more fully appear.

The said Thomas Alva Edison, on the twelfth day of February, 1880, by a certain instrument in writing duly executed and delivered by him, and bearing date on said last-mentioned day, granted to the Edison Electric Light Company, its successors and assigns, the entire right, title and interest in and to said improvement in electric lamps described in said letters patent No. 223,898, dated January 27th, 1880, and in and to said letters patent No. 223,898, and said instrument in writing was duly recorded in the Patent Office, as by a certified copy of said instrument in writing in court to be produced will more fully appear.

Upon the consolidation of said The Edison Electric Light Company and the said The Edison Company for Isolated Lighting and the organization of the said Edison Electric Light Company, as aforesaid, all and singular the rights, privileges, franchises, and interests of every kind belonging to or enjoyed by the said several corporations so consolidated, and every species of property, real, personal and mixed, and things in action, including the said letters patent No. 223,898, thereunto belonging, were transferred to and became vested in your orator, Edison Electric Light Company, and your said orator now holds and enjoys the same and all rights of property, privileges, franchises and interests to the said several corporations so belonging, in the same manner and to the same extent as if the said companies so consolidated had continued to re-
6 tain the title and transact the business of said corporations, and the title to said real and personal estate.

Pursuant to a resolution of the executive committee of the board of trustees of the said The Edison Electric Light Company, at a meeting of said committee, held on the 30th day of December, 1886, the said The Edison Electric Light Company, further to assure the transfer to your orator, the said Edison Electric Light Company, of the said letters patent No. 223,898, by a certain instrument in writing bearing date as of the date of the passage of the said resolution, and duly executed and delivered as of said date, did grant, transfer and assign to your orator, the said Edison Electric Light Company, its successors and assigns, all its right, title and interest in and to the said letters patent, and in and to the invention covered thereby,

together with all claims for damages for infringement of such letters patent with the right to sue for and recover such damages to its own use, and said instrument in writing was duly recorded in the Patent Office, as by a certified copy of said instrument in writing in court to be produced will more fully appear.

After the assignment from the said Edison to the said The Edison Electric Light Company of the 12th of February, 1880, and on the 8th day of March, 1881, the said The Edison Electric Light Company entered into an agreement with the said Thomas A. Edison, of which a copy is hereto annexed marked "Schedule A," and made a part hereof, and the interest of the said Edison in, to and under the said agreement thereafter became vested in and was held, owned, enjoyed and possessed by the said Edison jointly with four other persons, to wit, Charles Batchelor, Francis R. Upton, Edward H. Johnson and William Holzer. On the 12th day of January, 1884, the said Edison, Batchelor, Upton, Johnson and Holzer assigned all their interest in said agreement, and all claims thereunder, of whatsoever nature, to the Edison Lamp Company, a corporation organized under the laws of the State of New Jersey. After the consolidation of the Edison Electric Light Company and the Edison
7 Company for Isolated Lighting, hereinbefore set forth, the said agreement of March 8th, 1881, was modified by a further agreement in writing entered into between your orator Edison Electric Light Company, the said Edison and the said The Edison Lamp Company, under date of November 25th, 1887, a copy of which is hereto annexed marked "Schedule B," and is made a part hereof. Thereafter all the right, title and interest of the said Edison, and of the said The Edison Lamp Company, in the said agreement of March 8th, 1881, as modified by said agreement of November 25th, 1887, were assigned to, and became vested in, your orator Edison General Electric Company, together with all the claims for profits and damages which, under the said agreement of March 8th, 1881, and the modification thereof of November 25th, 1887, the assignors of said agreements had or might have for the infringement of the letters patent or any of them referred to in, or embraced by, said agreements.

The manufacture of incandescent electric lamps under said patent No. 223,898 has, since said twelfth day of January, 1880, been carried on by your orator, Edison Electric Light Company, and its predecessor, The Edison Electric Light Company, and the persons and corporations hereinbefore set forth and mentioned under and pursuant to the said agreements of March 8, 1881, and November 25, 1887.

Your orators have not entered into any other contract with regard to the manufacture of incandescent electric lamps under said patent than those hereinbefore set forth, and your orators have depended in that regard solely upon the use of the said invention and the monopoly which the ownership of said patent affords for their gains and profits.

Your orators are now by virtue of the premises the sole and exclusive owners of the letters patent before mentioned, and of al

claims for infringement or violation thereof, and are entitled to sue for and receive said claims to their own use.

8 Your orators and their predecessors in interest have expended large sums of money in practicing said invention and in introducing the same into public use, and the same is of great public utility and has made practical and commercial the subdivision of the electric light, and the construction of practical and commercial lamps for giving light by electrical incandescence, which before the invention or discovery by the said Thomas Alva Edison, of the improvement covered by said letters patent, had not been accomplished.

The fact that said Edison was the original and first inventor of said invention has been recognized and acknowledged by the public generally in all parts of the United States and Europe, and the fact that the patent above named is a good and valid patent, and the claims of your orators and their predecessors in interest of the exclusive right to the said invention under said patent, have been largely acknowledged and acquiesced in.

Over thirteen millions of incandescent electric lamps embodying the said invention and manufactured by your orators and their predecessors have been used in the United States, and there are now in use in the United States more than one million of such incandescent electric lamps so manufactured and but for the infringement and wrongs hereinafter complained of, your orators would now be in the peaceful possession and enjoyment of said letters patent and invention, and of the income derivable therefrom.

As your orators are informed and believe, the said defendant, subsequent to the said 12th day of February, 1880, and prior to the commencement of this action, and continuously since the 29th day of October, 1886, and within said district and elsewhere in the United States and the Territories thereof, has unlawfully, wrongfully and injuriously, without the license or consent of your orators or of their predecessors in interest, and against the will of your orators, and with full knowledge of the claims of your orators under the said letters patent, and that the rights conferred by said patent would be asserted and maintained, made, used or sold, or caused to be made, used or sold, many incandescent electric lamps which severally contained and employed the invention covered by said

9 letters patent and secured by the claims thereof, in violation and infringement of the said letters patent and of the exclusive rights secured thereby to the said Thomas Alva Edison and to your orators by the assignments and transfers aforesaid, and are now daily engaged in the making, using or selling of such incandescent electric lamps; but how many of such incandescent electric lamps the defendant has so made, used or sold, or caused to be made, used or sold, your orators are ignorant and cannot set forth, and, therefore, pray a discovery thereof; but your orators aver, on information and belief, that the defendant has so made, used or sold, or caused to be made, used or sold, a large number thereof, and that the defendant has derived and is deriving large profits therefrom,

but to what amount your orators are ignorant and cannot set forth, and your orators have incurred large damages thereby.

Your orators aver that the defendant, unless restrained by a writ of injunction issuing out of this court, will continue to make, use or sell, or cause to be made, used or sold, large numbers of such incandescent electric lamps, in violation and infringement of said letters patent, and will thereby cause irreparable injury to your orators' exclusive rights as aforesaid.

The Edison Electric Light Company, the predecessor of your orator Edison Electric Light Company, heretofore and in the month of May, 1885, commenced a suit in equity in the circuit court of the United States for the southern district of New York against The United States Electric Lighting Company upon the said letters patent No. 223,898, and such proceedings were had therein that on the 14th day of July, 1891, a decree was made establishing the validity of the said letters patent and the title of the said The Edison Electric Light Company thereto, and the fact of the infringement thereof by the said defendant therein, and awarding a perpetual injunction against further infringement of said patent, and which said decree was, on the 22d day of October, 1892, affirmed by the United
10 States circuit court of appeals for the second circuit, and now remains in full force and virtue, as by the record in said suit now remaining on file in the office of the clerk of this court, and to which reference is hereby made and had, will more fully and at large appear.

Your orators are informed and believe, and therefore aver, that the defendant herein, The Sawyer-Man Electric Company, was privy to the said suit against The United States Electric Lighting Company, and to the proceedings therein; was interested in and contributed to the defense of such suit; and that both said Sawyer-Man Electric Company and said The United States Electric Lighting Company have been since the commencement of active proceedings in said suit and now are owned or controlled by the Westinghouse Electric Company, a corporation organized under the laws of the State of Pennsylvania, and have been and now are substantially a part of the said Westinghouse Electric Company.

The said The United States Electric Lighting Company, since becoming a part of the Westinghouse Electric Company, as aforesaid, has not itself manufactured incandescent electric lamps, but has used and sold such lamps, and the incandescent electric lamps which it has used and sold have, since the time referred to, been manufactured by the defendant herein, The Sawyer-Man Electric Company. The accounting in said suit is now progressing, and the defendant has therein accounted for the lamps purchased by it from the defendant herein. It was shown by a stipulation in said suit that the defense thereof was conducted by the said Westinghouse Electric Company as the party in interest therein, and by which latter company the defendant herein, the said Sawyer-Man Electric Company, was therein represented.

Your orators aver that the defendant continues to manufacture, use and sell said incandescent electric lamps so made, in violation

and infringement of said letters patent, and refuses, though having knowledge of the pendency of the said suit and of the decrees therein, and though warned and requested so to do, to desist from such
11 manufacture, use and sale, or to pay to your orators such gains and profits, by means whereof the defendant has injured and is still greatly injuring your orators, and has deprived and is still depriving your orators of, and has prevented and is still preventing your orators from receiving, the gains and profits from the use of the exclusive right to use the invention and improvement claimed in said letters patent which your orators, but for the said wrongful acts of the said defendant, would have obtained and received.

Your orators pray that the said defendant may be compelled by a decree of this court to account for and pay over to your orators all such gains and profits as have accrued or arisen to or been earned or received by the defendant, or to which it may be entitled by reason of such unlawful manufacture, use and sale of said incandescent electric lamps manufactured in accordance with the improvement described and claimed in said letters patent, and all such gains and profits as your orators would have received but for the said unlawful acts and doings of the said defendant, and also all the damages which your orators may have sustained, or shall or may sustain by reason of the infringement by the said defendant of the said letters patent; and that the said defendant, its attorneys, solicitors, servants, agents and workmen may be perpetually enjoined and restrained by the decree and injunction of this court from directly or indirectly making or causing to be made or using or causing to be used or vending to others to be used in any manner any incandescent electric lamps made in accordance with or embodying or containing any of the inventions or improvements described and claimed in said letters patent, and from vending any such incandescent electric lamps, and from infringing upon or violating the said letters patent in any way, and that all the incandescent electric lamps in its possession, made in accordance with the said letters patent, may be forthwith destroyed or delivered up to your orators, and that the defendant may be decreed to pay the costs of this suit, and that your orators may have such other relief as the equity of the case may require or as to your honors may seem meet.

12 To the end, therefore, that the said defendant may, if it can, show why your orators should not have the relief hereby prayed, and may full, true, direct and perfect answer make, but not under oath (the oath being hereby expressly waived), according to the best of its knowledge, remembrance, information and belief, to the several matters hereinbefore averred and set forth, may it please your honors to grant to your orators a writ of *subpœna ad respondendum* issuing out of and under the seal of this honorable court, directed to the said defendant Sawyer-Man Electric Company, commanding it to appear and make answer to this bill of complaint, and to perform and abide by such orders and decrees herein as to this court may seem required by the principles of equity and good

conscience; may it please your honors also to grant to your orators a provisional or preliminary injunction, issuing out of and under the seal of this honorable court, enjoining and restraining the defendant, its attorneys, solicitors, servants, workmen and agents to the same purport, tenor and effect hereinbefore prayed in regard to said perpetual injunction.

And your orators will ever pray.

In witness whereof, your orators have caused this bill to be signed by Jacob H. Herrick, who is the president of your orator Edison Electric Light Company, and who is also vice-president of your orator Edison General Electric Company, and the seals of your orators' corporations to be hereunto affixed.

[SEAL.] EDISON ELECTRIC LIGHT COMPANY,
By J. H. HERRICK, *Its President.*

[SEAL.] EDISON GENERAL ELECTRIC COMPANY,
By J. H. HERRICK, *Its Vice-President.*

DYER & SEELY,
Solicitors for Complainant.
C. H. SEWARD,
GROSVENOR P. LOWREY,
R. N. DYER,
Of Counsel for Complainant.

13 UNITED STATES OF AMERICA,
Southern District of New York, } *ss:*
City and County of New York,

On this 27th day of October, 1892, before me personally appeared Jacob H. Herrick, the president of the plaintiff The Edison Electric Light Company, and also vice-president of the plaintiff The Edison General Electric Company, named in the foregoing bill of complaint, and who has signed the same, and he, being by me duly sworn, did depose and say that he had heard the said bill read, and knew the contents thereof, and that the same was true of his own knowledge, except as to the matters which are therein stated on information and belief, and as to those matters he believed it to be true.

And he did further depose and say that he did verily believe that Thomas A. Edison was the original and first inventor of each and every of the inventions and improvements described in the said letters patent in said bill referred to and recited in the claims thereon.

JACOB H. HERRICK.

Subscribed and sworn to before me this 27th day of October, 1892.

WM. H. MEADOWCROFT,
[SEAL.] *Notary Public* (234), *New York County.*

SCHEDULE A.

Agreement, entered into this eighth day of March, 1881, between the Edison Electric Light Company, a corporation organized under the laws of the State of New York, and hereinafter called the company, party of the first part, and Thomas A. Edison, of Menlo Park, Middlesex county, State of New Jersey, party of the second part, witnesseth:

Whereas, the company is, by assignment from said Edison,
14 the present owner of several inventions, upon which letters patent have been granted or applied for relating to electric light, and is by contract entitled to the ownership of all such other inventions as may be hereafter made by him during the period of five years from the twelfth day of January, one thousand eight hundred and eighty-one, and is desirous of promoting and encouraging the manufacture, in a skillful and responsible manner, of incandescent electric lamps to be used under the letters patent and inventions aforesaid;

And, whereas, the said Edison enjoys in an especial manner the confidence of the company in respect to skill, ability and integrity, so that the said company is willing, with such due safeguards in respect to its future business as may be right and proper, to confer upon said Edison the exclusive right of manufacturing in the United States incandescent lamps to be supplied to the licensees of the company in the United States, or under the conditions hereinafter expressed, for exportation to foreign countries for which the company does not own such inventions;

And, whereas, the said Edison is willing and desirous to engage in such business of manufacturing and to devote his best skill and ability, not only to producing the best article which is possible, having respect to durability and the quality of light and economy of maintenance, but also to reduce the price of the same, from time to time, to the company, preserving only a suitable manufacturer's profit, and to join with him Charles Bachelor, Francis R. Upton and Edward H. Johnson, who are expert and experienced persons, also enjoying the esteem of the company in the respects above named;

And, whereas, it is mutually conceded by the parties:

First. That the said Edison and his associates must have such assurance of being continued in the exclusive manufacture above referred to as can properly be given to justify the expenditure requisite for providing the manufacturing plant needed to
15 meet the demand of the company or its licensees for lamps at all times during the period of this contract; and

Second. That the company cannot put the manufacture of its lamps wholly out of its control; that failure or inability of the said Edison to supply the demands of licensees might jeopardize the prompt or profitable introduction and adoption of the company's system throughout the United States.

It is agreed as follows:

I. The company does hereby, subject to the stipulations herein-

after provided, license and agree to license the said Edison, with the exclusive right to manufacture, within the United States, for consumption therein, the incandescent lamp now, or from time to time, used in connection with the electric lighting system of said Edison, owned by the company, and will not license the introduction into the United States, to be used therein, the same or similar lamps manufactured elsewhere or by any other parties, as hereinafter provided.

II. Said license shall, unless terminated or the exclusive character therein modified, as hereinafter provided, continue during the life of all and each of the letters patent for inventions of said Edison owned by the company, under which said incandescent lamps may at any time be made.

III. The said Edison agrees to keep himself prepared to supply, and to supply promptly, all demands by the licensees of the company within the United States for such lamps at a price not to exceed thirty-five cents per lamp, safely packed at a railway station ready for shipment, and from time to time reduce such price as improvements in the art of manufacturing or other causes may make such a reduction possible, it being understood that at a price of thirty-five cents a net profit of three cents per lamp may be made and is adequate, and that a greater profit may be made as the business of manufacturing may continue and develop.

It is further agreed that the said Edison will endeavor to reduce the cost of manufacturing the standard lamp, and that, whenever the cost thereof shall fall below thirty-two cents each, he will pay over to the company one-half the difference between that price and the actual cost of the lamps manufactured, and that on the first of January and first of July of each year said Edison shall render to the company an accurate statement of the number of lamps manufactured during the preceding six months and the actual cost thereof, and if such actual cost shall be less than thirty-two cents said Edison shall pay over to the company one-half the difference between such actual cost and thirty-two cents each for all lamps for which he may have received payment during the next preceding period of six months, and the company, by its officers and agents, shall have free access at all times to the manufactory and books of the said Edison and all other books connected with the business thereof for the purpose of verifying the statements so made. In determining cost, the total manufacture or output during the six months, whether for the company or for foreign export, shall be taken into account, and the average cost of all the lamps manufactured during said six months shall be taken as the actual cost of a lamp under this contract.

16

IV. The said Edison shall invest or procure to be invested in actual cash immediately not less than fifty thousand ($50,000) dollars for the establishment of a suitable manufactory capable of furnishing one thousand lamps complete during each and every working day in the year, the investment already made at Menlo Park for that purpose being taken as a part of the same, and will thereafter keep himself adequately prepared to supply lamps to the licensees of the

company when called for in the manner hereinafter provided. In order, however, that the said Edison and his associates may not be under the necessity of making large expenditures for manufacturing plant in advance of the establishment of the Edison electric lighting system throughout the United States, or upon an uncertainty as to the amount of lamps that may be required by licensees of that system from time to time, it is further agreed that the company shall,
17 whenever it grants licenses for the use of its lamps or system in any territory within the United States, give notice thereof to the said Edison with the name of the licensee, and will require from such licensee a notice of the number of lamps required by it for initial installation, and the time when (not less than three months after the date of such notice) the same shall be required, and the company will transfer to the said Edison full information thereof, and will also, upon his request, obtain, so far as possible, such suitable security or payment in advance, in behalf of the said Edison, as will justify him in building such additional buildings or machinery as may be requisite to supply to such licensee, within the time notified, the lamps required for initial installation as well as for subsequent maintenance in the territory covered by the licensee, and thereupon it shall be the duty of the said Edison, on receiving due payment therefor, to supply at the time named to such licensee the number of lamps called for, and thereafter to keep such licensee fully and promptly supplied with all lamps required for maintenance in such territory. In all business connected with the supplying of lamps the company will act as the agent both of the licensee and of the said Edison. No order shall be received by the said Edison directly from any licensee; all orders shall pass through the company, and all drafts for payment shall be made upon the licensee through the company as such agent; all shipments and deliveries shall be made only under the direction and control of the company, but no compensation shall be charged to the said Edison for such service or intervention.

V. It being essential for the protection of the interests of the company that its licensees, who are by this agreement virtually restricted to one manufacturing establishment for their supply of lamps, shall be, nevertheless, at all times able to procure the same of a suitable style, quality and character, with promptness and despatch, and that the company shall have full power to pro-
18 tect itself against being hindered or delayed in introducing its lighting system in all parts of the United States it is agreed:

(1) That all lamps manufactured shall be of one or more standard sizes, styles and grades, to be fixed and determined by the company, and from time to time altered and modified by it, so to enable the company to require the introduction from time to time of all possible improvements affecting either the style, economy, durability or other qualities of such lamp, provided, however, that any such change which shall make necessary the use of more material, or that which is more expensive, or shall enhance the labor of making or handling said lamps, shall be made the subject of a revision of

price, preserving the same relative proportion of outlay and profit as is fixed above; and, in case of failure of the parties to agree, the revision shall be made and fixed by a competent arbitration to be appointed in the manner provided for by the seventh article hereof.

(2) That the diagrams and drawings hereto annexed, marked "Exhibit A," are to be taken as establishing such standards for the purpose of this agreement, and until the same shall be modified by the company.

(3) That the said Edison shall deposit with the company forthwith complete working drawings and models of such lamp in all its different forms as now made; and that thereafter, during the continuance of the contract, full and complete duplicates of the same, and working drawings and models of all improvements, changes or modifications thereunder, and of all machinery, tools and appliances of every kind employed by the said Edison or his associates in the manufacture of such lamps, or in any way connected with the manufacture of the lamps, or any part thereof, shall, with full specifications of the same, be promptly deposited with the company.

(4) In case the said Edison shall fail to supply all the lamps supplied by the licensees of the company, or any of them, as the same shall be called for, the company shall have the right to
19 manufacture, or cause to be manufactured by others, such an amount of lamps as may be, in its judgment, requisite not only to supply the amounts in which the said Edison has been deficient, but also to guard against future failure of similar character. This stipulation is, however, intended to have a reasonable interpretation, viewing all the difficulties of the said Edison in building up a new business in which unforeseen obstacles may be encountered, tending temporarily to embarrass him in the performance of his contract without his fault, and also viewing the necessity which the company is under to make its territory promptly available by providing ample resources from which its licensees may obtain supplies; and, with all these considerations in view, it is agreed that the company must necessarily be, and shall be, left free to judge from time to time, acting reasonably and with good faith, whether the resources and management of the said Edison are such that he is liable to fail in supplying the lamps which have been or may be required by its licensees, and acting upon such judgment, and in good faith, the company shall have the right, after any failure by the said Edison to make, or cause to be made by others, such amount of lamps as may, in its judgment, be requisite to supply past deficiencies and to guard against the contingency of future failure, and to sell and dispose of the same as it may think proper; but it shall not have the right to manufacture or authorize the manufacture of lamps by other persons, except to such limited extent as may be or seem necessary for the purposes above set forth. In contracting for lamps with any other manufacturer, in providing means and appliances for such manufacture by itself, it shall be at liberty to provide or contract for such future supply as will justify the original

outlay for plant to cover the actual or possible deficiency sought to be guarded against.

VI. The said Edison shall have the right, without royalty, to manufacture lamps for export to all foreign countries other
20 than those in North and South America, but notice shall be given to the company of the time, place and amount of such exportation before shipment of same from the manufactory, and the books of entry or correspondence relating thereto shall in like manner be at all reasonable times open to the inspection of the company. But this right to manufacture for export shall not be allowed to interfere with the prompt filling of orders given by the company or its licensees, and the demands of that company shall always take precedence of shipments to foreign countries.

VII. Should the said Edison continue, after the expiration of one year from the date hereof, during any period of six successive months, to fail in supplying the requirements of any one or more of the company's licensees, it shall then be at the option of the company to terminate this exclusive license; but in that case it shall, if required by the said Edison, take over the manufactory and other property erected or provided by him for the purpose of such manufacture, at the actual cost thereof, with the fair allowance for depreciation by use, such valuation, in case the same cannot be agreed upon by the parties, to be fixed by three competent appraisers, one to be chosen by each party hereto and the other to be chosen by such two. Should, however, the said Edison in the case provided for by this section, elect not to make such requirement, it shall be the duty of the company to deliver the orders of its licensees to the said Edison for such amount or amounts of lamps as he may have furnished as his average daily output for the three months next preceding any notice by the company of its intention to terminate the exclusive license; but, as to any excess which in its judgment may be required thereafter by the licensees of the company, it shall be free to manufacture or authorize the manufacture of the same by other parties as provided in the foregoing clauses.

VIII. In case the said Edison shall supply or sell lamps to any person or corporation in the United States other than the licensees of the company, or except upon an order in each instance
21 made by said licensee through the company or by the company itself, or shall fail to keep proper books of account for the purposes herein provided; or shall refuse access thereto, to the company's agents, at any proper and reasonable time, for the purpose of determining the cost of such manufacture, or shall fail to furnish models, working drawings and specifications and deposit the same promptly with the company, or shall delay the supply of the company's licensees by engaging in work for foreign countries without the consent in writing of the company, it shall be at the option of the company to revoke all licenses granted or arising hereunder.

IX. In case the company shall become the owner of any other letters patent or inventions, or licenses therefor, or any tools, machinery or appliances useful in manufacture of such lamps, the

company shall authorize the said Edison to make use of the same for the manufacture authorized by this contract during its continuance. Should the said Edison or any of his associates above-named, at any time hereafter, become the owners, by purchase or otherwise, of any letters patent or inventions, or licenses therefor, or any tools, machinery or appliances useful or necessary in the manufacture of such lamps, he or they shall license the company or such persons as, after failure of the said Edison referred to and provided for in the foregoing clauses hereof, the company may find necessary to employ for supplying the deficiencies above mentioned. It shall be an obligation of good faith, binding upon the said Edison and whoever may be associated with him and derive benefit hereunder, to take all licenses or rights to use the inventions of others in such form as to be able to convey such rights of use to the company upon the contingency last above stated. Prompt notification shall be given by each party of every acquisition of the ownership or the right to use any letters patent capable of use in or about the manufacturing or handling of said lamp.

X. Whenever for the purpose of this agreement it shall,
22 from time to time, be necessary to determine the actual cost of the manufacture of lamps packed and delivered for shipment as above described, no compensation shall be allowed the said Edison, but there shall be allowed a fair and usual compensation for the actual services of the said Bachelor, Upton and Johnson, such as is customarily paid in manufacturing establishments for similar services, but no account shall be made of interest or investments either in plant or stock.

XI. In case the said Edison should, by reason of death, disability or any other cause, be unable or fail to give his personal skill, ability and experience to the manufacture of such lamps, it shall be at the option of the company to terminate this contract and all licenses and privileges arising thereunder. But, in case such failure shall be without the fault of the said Edison, the company shall purchase or procure to be purchased all his manufactory, works, machinery and appliances at a fair valuation, to be appraised in case of disagreement between the company and the said Edison or his personal representatives by an arbitration in the manner provided by the seventh article hereof.

In witness whereof, the said The Edison Electric Light Company has caused these presents to be subscribed by its president and its corporate seal to be hereunto affixed and attested by its secretary, and the party of the second part has hereunto set his hand and seal, the day and year first above written.

THOMAS A. EDISON.

Witness to the signature of Thomas A. Edison:
SAM'L INSULL.

THE EDISON ELECTRIC LIGHT COMPANY,

[SEAL.] By S. B. EATON, *Vice-President.*

Attest: C. GODDARD, *Secretary.*

23 SCHEDULE B.

Agreement, made November 25th, 1887, between T. A. Edison, The Edison Lamp Company and The Edison Electric Light Company (successor to the "The Edison Electric Light Company," and treated herein as identical therewith for all purposes).

(1) Various agreements have been made by Mr. Edison and the light company, among them those dated November 15, 1878, January 12, 1881, March 8, 1881, and April 23, 1885 (the lamp Co. and others being also parties thereto), whereby the light Co. recognized as a debt due to Mr. Edison the sum of $66,755.70 and promised to pay the same before paying any dividend on its capital stock. Since that date the light Co. has not paid any dividend on its stock, but it has, nevertheless, discharged to the satisfaction of Mr. Edison $37,868.20 of said debt, and now, in consideration of this agreement and in consideration of the assignment and transfer by the Edison Lamp Company and said Edison to said light company of patents and patent rights valuable in connection with the manufacture of incandescent lamps, said light company will discharge the balance thereof by paying $5,000 in cash and by issuing to him its certain promissory notes, which Mr. Edison will accept as a full settlement of said debt, as follows:

One for $8,000.00, payable January 1st, 1888.
" " 8,000.00, " February 1st, 1888.
" " 7,887.50, " March 1st, 1888.

(2) The first paragraph of the third section of the said agreement of March 8th, 1881, shall be modified by substituting, subject to the limitations hereinbelow set forth, the price of forty cents for thirty-five cents in the fourth line thereof, said price of forty cents to apply to lamps of 10, 13, 16, 20 and 24 candles power, which are taken as standard lamps whenever lamps are mentioned in this contract; other lamps are to be at prices as agreed upon from time to
24 time, and by canceling in said paragraph of said section from and including the words "and from time to time to reduce" down to the end of said section, by striking out section IV from the beginning to words "being taken as part of the same" and commencing the following sentence with the words "and Edison, &c.," and by canceling in the first subdivision of the fifth section, from and including the words "provided however that any such change" down to the end of said paragraph, and substituting in place thereof the following: "Provided, however, that any such change which shall make necessary the use of more material, or that which is more expensive, or shall enhance the labor of making or handling said lamps, if it involve an extra expenditure of over four cents per lamp over the cost of the present lamp, shall warrant a revision of price. The revision shall be made and fixed by a competent arbitration to be appointed in the manner provided for by the seventh

article hereof;" and by changing the beginning of the third subdivision of said fifth section so that it shall read: "That the said Edison shall deposit with the company, at its request, from time to time complete," &c., &c., and by changing the beginning of the fourth subdivision of said fifth section so that it shall read: "In case the said Edison shall for ninety days after receipt of written notice from the light Co., or any of its licensees, that such lamps are required, fail to supply all the standard lamps reasonably required by the licensees of the company," &c.; and by canceling in the same subdivision from and including the words "viewing all the difficulties of the said Edison" down to the end of said subdivision; insert after words "to manufacture," second line, paragraph six, following words: "Under patents now or heretofore assigned or hereafter to be assigned hereunder to or acquired hereunder by said light company;" strike out in paragraph six words "before shipment;" and by inserting near the beginning of the seventh section after "fail in supplying the requirements" the words "for 25 standard lamps," and by canceling in said seventh section, from and including the words "should, however, the said Edison in the case provided for" down to the end of said section; and by canceling in the eighth section from and including the words "or shall refuse access thereto" down to and including the words "by engaging in work for foreign countries." After words "other than the licensees of the company," near beginning of paragraph eight, insert words "thereby evading the letter and spirit of this contract," and after words "without the consent in writing of the company," paragraph eight, the words "or against its protest;" and by canceling all of the tenth section.

The Edison Lamp Company is hereby made a party to said agreement of March 8, 1881, and shall be considered as sharing the benefits of said agreement and bearing the burden thereof as hereby modified and amended, in the same manner and to the same extent as if it had been an original party thereto.

(3) In case the light Co. should at any time or times reduce its price for standard lamps for sale to users of isolated plants, to below fifty-five cents, the price of forty cents per lamp for such lamps shall likewise be reduced by one-half of the difference between fifty-five cents and such reduced price, until the price allowed the lamp company shall reach twenty-five cents, below which price Mr. Edison and the lamp company shall not be obliged to participate in any reduction; but if the price to the lamp company shall reach thirty cents, the lamp company shall not be obliged to bear the cost of any changes of manufacture even though they be less than four cents, but the cost of such changes shall thereafter be determined as hereinabove provided and added to the price to be charged by the lamp company for the lamp.

(4) There shall be added to the end of the eleventh section of said contract of March 8th, 1881, as a part thereof, the following words, "but in case the said Edison or his representatives or the

said lamp company should elect not to sell said manufactory,
26 works, &c., as above provided, the light company shall thereupon, or as soon thereafter as practicable, give the lamp company an opportunity to arrange on as favorable terms to said lamp company as said light company will make with any other manufacturer, to continue the manufacture and supply of lamps for the purposes of the light company, as herein contemplated, and shall not make arrangements with any other manufacturer for such manufacture and supply until they have had a fair opportunity to consider and decide upon the opportunity so offered. And, until the light company shall have made such other arrangements and shall be obtaining its supply thereunder, the said Edison, his representatives and the said lamp company shall continue to furnish it with all needful lamps under the conditions of this contract.

In case the contract is terminated by the light company, as above provided, the lamp company shall, nevertheless, have the right to offer and sell lamps to all such central station licensee companies of the light company as may be entitled to obtain lamps, without profit to the light company, for their own use only, and to sell lamps to be exported and used outside of North and South America, but the lamp company shall not offer or sell lamps to any central station, or other user thereof in North or South America, who may not be duly licensed by the light company to use such lamps, and to obtain same without profit to the light company.

(5) In consideration of the foregoing modifications, Mr. Edison and the lamp company jointly and severally agree, in addition to the license provided for in the contract of March 8, 1881, to assign to the light company, free of charge, all patents, licenses, rights and inventions pertaining to the lamp or its manufacture now held or controlled by them or either of them, or hereafter, at any time, within a period of three years from the date hereof, invented
27 or acquired by or for them, or either of them, and agree to take all needed steps to patent the said inventions—the light company to pay for only the actual legal fees and costs of obtaining said patents or any of them. Mr. Edison will continue to seek in all respects, by appropriate invention, to improve the lamp so as to make it of greater commercial value to the light company.

The lamp company and certain of its stockholders, viz., Thomas A. Edison, Francis R. Upton, as evidenced by their signatures hereto (in view of the benefits to accrue to it and them) will, and hereby do, admit and acknowledge the validity of all patents, and the validity and utility of the inventions therein described and claimed, pertaining to the Edison system of electric light, heat and power, which the light company may own or acquire during the continuance of this agreement, and hereby covenants, whether this agreement continues or not, that it, he or they will not, in any case, violate, infringe or contest the validity of any such patents, during their several terms of life, as originally issued or afterwards extended,

or the sufficiency of their specifications, or the validity of the title of the light company to any such patents or any of them, or aid or encourage others in so doing, save and except, however, that if any of such patents shall have been adjudicated invalid in any action at law or suit in equity, and the light company shall not have appealed therefrom, or if, in the event of such appeals, the final adjudication shall have been adverse to the validity of such patent, each of them shall then no longer be bound, as above provided for, to admit and acknowledge the validity of such patent or patents thus adversely adjudicated upon.

And Mr. Edison, his successors and assigns, further agree that he or they will not, during the continuance of said agreement, allow the sale, transfer or other disposition of any stock in the said lamp company, except to such present stockholders thereof as shall
28 sign this agreement, without first causing it to be offered in writing to the light company at the same price and on the same terms as such stockholder has a *bona fide* offer, for which offer he, in good faith, proposes to accept; the said offer to the light company to be kept open for a period of ten days, and no sale or transfer of said stock to be made until after the expiration of said ten days to any other party or parties than the light company; and, should any such sale or transfer then be made, it shall not be made at any lower price or any better terms than previously offered in writing to the light company, as above provided for. This contract shall not be forfeited as to the lamp company by reason of the inability of any individual party hereto to at any time comply with this section.

In case the practical or substantial control of the lamp company or its factory, should pass to parties interested in other systems of electric lighting, so as to make them hostile to the interests of the light company, such fact shall *ipso facto* entitle the light company to cancel all rights to Mr. Edison and associates, including the lamp company, hereunder, excepting the right to offer and sell standard lamps to all such central stations licensee companies of the light company as may be entitled to obtain lamps without profit to the light company for their own use only, and to sell lamps to be exported and used outside of North and South America, but the lamp company shall not offer or sell lamps to any central station or other user thereof in North and South America who may not be duly licensed by the light company to use such lamps, and to obtain same without profit to the light company.

The said agreements of November 15, 1878, and January 12, 1881, are hereby modified so far as necessary to conform to this agreement.

On the first day of January, 1908, if this agreement be then in force, or if any parts of it be then in force, all rights and
29 obligations hereunder, and under the agreement of March 8, 1881, shall cease and be at an end.

In witness whereof, the three parties hereto, and stockholders holding majority of stock of the lamp company, have severally exe-

cuted this agreement at the city of New York, the day and year above named.

EDISON ELECTRIC LIGHT COMPANY,
[SEAL.] By EDW'D H. JOHNSON, *President.* [SEAL.]

Attest: F. S. HASTINGS, *Sec'y.*

Witness to the light Co.:
F. S. SMITHERS.

THE EDISON LAMP COMPANY,
[SEAL.] By THOS. A. EDISON, *President.* [SEAL.]

Attest: SAM'L INSULL, *Secretary.*

Witness to the lamp Co.:
THOS. A. EDISON, [SEAL.]

H. W. LUCY,
Witness to Mr. Edison.

FRANCIS R. UPTON.

H. W. LUCY,
Witness to Mr. Upton.

30 *Howell's Affidavit.*

United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY *vs.* SAWYER-MAN ELECT-IC COMPANY. } In Equity.

UNITED STATES OF AMERICA, *Southern District of New York,* } *ss:*

John W. Howell, being duly sworn, deposes and says as follows: I am 34 years of age, and reside at Newark, New Jersey. I have been employed for upwards of 10 years in the Edison lamp works as electrician; a part of my duties during that entire period has been the testing of incandescent electric lamps made by the Edison company, and also those made by other companies, and I have consequently obtained a large practical experience in the making of such tests.

I recognize the six incandescent electric lamps in the possession of complainants' counsel, and marked as follows:

"Complainants' Exhibits Defendant's 110-volt Lamps,
31 Nos. 1, 2 and 3," and "Complainants' Exhibits Defendant's 50-volt Lamps, Nos. 4, 5 and 6."

These lamps were placed in my hands on the 19th day of October, 1892, for the purposes of test. At the time I received them they each bore the following printed label:

"16 C. P. Sawyer-Man Lamp Volts," with blank spaces in which

the special factory mark and voltage for each lamp were placed, and I placed upon them additional labels bearing my initials and the date.

The test I made of these lamps was as follows: I first observed the duration of vibration of the burner of each of the exhibit lamps when it was set in vibration by tapping the globe with the finger. The prolonged duration of vibration indicated that a high degree of vacuum existed in the receivers, such as is necessary to insure the practical stability of the filamentary carbon burners under the ordinary conditions of use. I then measured the resistances of the exhibit lamps when their burners were cold, or not heated by the passage of a working current, and I then measured their resistances when the lamps were supplied with a working current sufficient to raise them to the incandescence at which they were intended to operate, viz., that giving sixteen candles of light per lamp. The resistances cold and hot were as follows:

100-volt Lamps.

Lamp number.	Resistances cold.	Resistances hot.
1	400 ohms	209 ohms.
2	385 "	205 "
3	394 "	205 "

50-volt Lamps.

Lamp number.	Resistances cold.	Resistances hot.
4	96.9 ohms.	47.1 ohms.
5	100.2 "	48.0 "
6	94.4 "	45.8 "

32 The fact that the burners of these lamps are made of properly carbonized material is shown conclusively by their elasticity when subjected to vibration, by their high specific resistance, as indicated by the foregoing measurements, and also by the large reduction in their resistance when they are heated to incandescence.

After the electrical measurements above stated, I then opened the glass-enclosing chamber of the 100-volt lamp No. 1, and of the 50-volt lamp No. 4, noticing the inrush of air, which indicated the presence of a vacuum in each lamp. I then measured the physical dimensions of the carbon burners of these exhibit lamps, and found them to be, for the 100-volt lamp, length 6.9 inches and diameter from 5 to 6 thousandths of an inch, and for the 50-volt lamp, length $5\frac{3}{8}$ inches and diameter about 7 thousandths of an inch. My measurements of the diameter showed that the carbon burners have a nearly circular shape in cross-section. I then examined the burners under a microscope. This examination showed that the burners are of nearly circular shape in cross-section, and that they are composed of carbon.

The other exhibit lamps of each type, which I did not open, have, as shown by inspection and by the electrical measurements, carbon

burners of substantially the same shape and physical dimensions as the lamp of the same type which I did open.

My examination of the exhibit lamps also showed that the carbon filament in each of such lamps of both types is connected with two fine platinum wires, which pass through the walls of the glass chamber, and are sealed therein by the fusion of the glass upon the wires; also that the glass chamber itself was sealed at all points by the fusion of the glass. Each of these lamps is therefore constructed with a receiver made entirely of glass; that is to say, closed at all points by the fusion of the glass upon itself; with fine platinum leading-in wires passing through and sealed into the walls of the glass receiver by the fusion of the glass upon them, and with a burner composed of carbon, filamentary or thread-
33 like in size, and properly carbonized, joined to the ends of the platinum wires within the receiver, the said glass receiver having been, prior to the final sealing thereof, exhausted of air to such an extent that disintegration of the carbon, due to the air-washing action of surrounding gases or to any other cause, is so far reduced as to leave the carbon practically stable.

JOHN W. HOWELL.

Subscribed and sworn to before me this 28th day of October, 1892.

E. A. MacCLEAN,
Notary Public, Kings Co.

[SEAL.]

Cert. filed in N. Y. Co.

34 *Upton's Affidavit.*

United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MANN ELECTRIC COMPANY.
} In Equity.

UNITED STATES OF AMERICA,
Southern District of New York, } *ss:*

Francis R. Upton, being duly sworn, deposes and says as follows: I am 40 years of age, and reside at Orange, N. J. I am manager of the lamp-manufacturing department of the Edison General Electric Company, and have been manager of the Edison lamp factory for such company and its predecessors since the establishment of the business in 1880.

I recognize the six incandescent electric lamps in the possession of complainants' counsel, three of which are marked "Complainants' Exhibit Defendant's 110-volt Lamp," Nos. 1, 2, and 3, and three of which are marked "Complainants' Exhibit Defendant's 50-volt Lamp," Nos. 4, 5, and 6. I furnished these lamps to complainants'

counsel. They were manufactured by the Sawyer-Man Electric Company, of New York city, and are lamps such as have been manufactured and sold in large quantities by that company for several years last past, and are now being made and sold by that company.
35 Each of such lamps has stamped on the brass collar the words "Sawyer-Man patents," and also has a label pasted on the glass neck bearing the trade-mark which the Sawyer-Man Electric Company has for some time used in its business.

FRANCIS R. UPTON.

Subscribed and sworn to before me this 28th day of October, 1892.

H. L. BRAYNARD,
[SEAL.] *Notary Public, Westchester Co.*

Cert. filed in New York Co.

36 *Edison's Affidavit.*

United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

STATE OF NEW JERSEY, *County of Essex*, } *ss:*

Thomas A. Edison, being duly sworn, deposes and says as follows:

I am forty-four years of age, and reside at Llewellyn Park, New Jersey, and am by occupation an inventor. I am the patentee of the patent here in suit, and believe myself to be the original inventor of the subject-matter therein described and claimed.

The subject of electric lighting has occupied my attention at intervals from a very early period in my life. As early as 1864 I commenced to experiment in this field, and have continued such line of experimenting down to the present time, without, however, preserving a record of my work prior to the year 1877.

During the early part of the year 1877, and for some time prior thereto, I had been experimenting on my carbon telephone. Toward the fall of 1877, having about finished this line of labor, and having several ideas which I desired to work up, I di-
37 rected my attention to the subject of subdividing the electric light, and at once began a series of experiments to solve the problems presented.

Of my experiments, commencing at this time, some (though by no means complete) records have been preserved, and have been introduced in various legal proceedings in which my inventions became involved.

When I began such work in 1877, I was the owner of a laboratory

at Menlo Park, which had cost me in the neighborhood of $30,000 to erect and equip with scientific appliances and materials, and I had in my employ eight assistants.

Beginning about July and running through several months thereafter of the year 1877, I tried a series of experiments with carbonized paper to determine its availability as the light-giving body for an incandescent electric lamp. I employed in these experiments two kinds of receptacles or chambers for the carbon experimented on. One consisted of an air pump, its base and a bell jar cover, the conductors being passed through the base of the air pump and the bell jar placed over the terminals of such conductors and the air exhausted, the carbonized paper being secured between the terminals and on the passage of the current brought up to incandescence in the vacuum thus produced. The other chamber employed was a piece of philosophical apparatus known as a Gassiot cascade, commonly employed in lecture-rooms to exhibit the phenomena of the electric brush; it consisted of a spherical chamber of glass, with metallic ends which formed a part of the terminals, and having a stop-cock so arranged as to be placed over the inlet tube of an exhaust pump to exhaust the air from the chamber, and was detachable from the air pump in the exhausted condition.

The carbonized paper used in both the forms of containing chambers above described was, on the passage of the current, almost immediately consumed by combustion, lasting perhaps a minute or two; it, however, was heated by the passage of the current to
38 incandescence and gave light. The paper carbons thus tried varied in shape and size. Strips were used about an inch long and one-sixteenth of an inch broad and six or seven one-thousandths of an inch thick. Strips of carbon in the form of a horseshoe or loop were also tried under the bell jar of the air pump and brought up to incandescence.

Besides these experiments with carbonized paper *in vacuo*, I also placed strips of carbonized paper in the electric circuit and brought them up to incandescence in the open air. They possessed no durability whatever, being immediately oxidized and having very much less durability than when tried in the vacuum chambers above referred to.

The fact that carbonized paper was immediately consumed or oxidized on the passage of the current through it in the open air, and the fact that its introduction into such a vacuum as I was then able to obtain, did not materially prolong its durability, led me at the time to conclude that a strip of carbon was not the proper material to be employed as the burner of an electric lamp in the conditions then available to me.

I then turned my attention to metals which were practically unoxidizable, and of those I selected for experiment the most infusible, such as boron, silicon, rathinium and chromium. I also endeavored to make the paper carbons durable by coating them with glass and silicon, which on the passage of current would melt and form a protecting film against oxidation, but the results were not promising. The experiments with boron, silicon and other unoxidizable metals

were continued for some time, and I was enabled to maintain a piece of silicon incandescent for an hour at a time.

The results of all these experiments in the year 1877, however, were not sufficiently satisfactory to be considered available in any sense for electric lighting on a practicable or commercial basis.

In addition to experimenting on the production of a lamp, I also considered and experimented upon the manner of arranging
39 the circuits for lamps, trying at different times lamps having burners of different substances. Lamps with burners of boron, for instance, which has a very high resistance, I determined, would have to be arranged in multiple arc, and lamps with burners of silicon, which has a very low resistance, would have to be arranged in series.

I continued these and other cognate experiments down until about January, 1878, and expended thereon between five and six thousand dollars. Then my time and attention were absorbed by the excitement caused by the invention and exhibition of the phonograph. My whole time and the time of my assistants down to July of 1878 was employed upon the perfection of the phonograph, when my health being broken down by several years' continuous labor, I went to California and other places in the West, spending about two months. On my return in August, 1878, I immediately resumed the experiments of 1877, interrupted by the phonograph and the state of my health, and continued the same night and day down to the time of the invention which is the subject of the patent in suit, and for many months and years thereafter.

In the fall of this year (1878) I entered into relations with the Edison Electric Light Company, the predecessor of Edison Electric Light Company, one of the complainants herein, under an agreement by which I was to perfect the system of electric lighting I had in contemplation. My laboratory working force at Menlo Park, where the experiments were conducted, was immediately increased, both in the laboratory and in the machine shop annexed. The best mechanical skill was obtained, as well as the services of scientists and mathematicians. My experiments were then renewed on an extended scale, and I at one time during the course of these experiments had upwards of one hundred men engaged upon various branches of experimental work relating to incandescent electric lamps and incandescent electric lighting.

40 My main efforts at this time took two directions, to wit, the production of an incandscent lamp employing a burner of metal unoxidizable and having a high melting point, and a semi-incandescent lamp employing carbon in contact with another material, the light to be produced at the point of contact of the two. In neither of these forms of lamp was a vacuum required, the burners being renewable like the wick of an ordinary lamp, and the lamp chambers being simply easily removable glass covers, to protect the burners from mechanical injury and from air currents.

I concluded that the only possible solution of the problem of subdividing the electric light was that the lamps must have a high resistance and small radiating surface, so as to be capable of work-

ing in multiple arc commercially. I believed that in this way the problem could be solved scientifically and commercially.

By the subdivision of the electric light is meant an arrangement whereby many lamps can be placed on a single circuit and each be entirely independent of the others, so that any lamp can be turned on or off without affecting its neighbors; and such subdivision I believed could only be accomplished by employing the lamps in a multiple-arc circuit, because only by such an arrangement of the lamps in circuit could their independent control be practically effected, and in such a circuit, lamps of high resistance were necessary in order that the size and cost of the conductors should not be excessive.

Besides my said experiments in 1878 on incandescent lamps with unoxidizable metal burners and on semi-incandescent lamps employing carbon, I also experimented at considerable length upon incandescent lamps having carbon burners in such a vacuum as we would get with an ordinary air pump; these latter experiments being tried from time to time during the experiments on the unoxidizable metals and on the carbon semi-incandescent lamps. In the early fall of 1878 we had our ordinary air pump placed in order, for the purpose of conducting some experiments on incandescent carbon conductors *in vacuo*, and we tried a great
41 number of experiments with paper carbons, wood carbons, and carbons made with carbonized broom-corn. But our experiments in these lines, with the pump we had, were not as satisfactory as the experiments we were conducting with metal conductors, because if we gave the carbon such a form as to have a small surface and high resistance (which I had found was indispensable), it would last but several minutes; consequently I laid these experiments aside and went on with the experiments on platinum and other nearly infusible metals to endeavor to obtain with them a lamp of high resistance and small radiating surface. The great end I desired to reach was a lamp of high resistance and small radiating surface, and it did not matter very much whether it was carbon or platinum that led to it, provided the lamp was in other respects practical.

I also, in September and October, 1878, tried paper coated with tar and lampblack and carbonized, holding it in clamps connected in circuit, and placed under the bell jar of a vacuum pump; I also tried carbonized broom-corn in the same way, about fifty carbons being made for such experiments, measuring about one-thirty-second of an inch in breadth and one or two inches in length. I also resorted to the use of potassium and sodium within the lamp chamber containing these carbons, for the purposes of absorbing oxygen and thereby effecting a higher vacuum than obtainable by our pump.

In the year 1879 my experiments were continued, and were, during the first part of the year, and so far as lamps are concerned, confined mainly to lamps having metal burners of the platinum group of metals, with the exception of some experiments, in January, 1879, wherein carbon was used in contact with a metal plate, light being

produced at the point of contact, said lamp being designed as a "shop lamp," affording a limited subdivision and not a subdivision over wide areas.

About April, 1879, I devised a means whereby platinum wire of a given length, which would melt in the open air at a point
42 where it emits a light equal to four candles, would emit a light equal to twenty-five candles without fusion. This was accomplished by introducing the platinum wire into an all-glass chamber, highly exhausted, and passing the current through the platinum wire while the vacuum was being made.

The lamp provided with a burner of platinum subjected to this process required in operation a thermal regulator to avoid fusion of the burner on the passage of intense currents.

My lamp experiments during 1879, including those with platinum and other like metals, were continued with unremitting vigor, and my laboratory was kept going night and day. The knowledge obtained by me, that the passage of a current through platinum during the process of exhausting the chamber in which it was contained, would drive out occluded gases and thereby increase the infusibility of the burner, led me to aim at securing greater perfection in the vacuum, upon the theory that the higher the vacuum in which was carried on the process of treating the platinum, the higher would be the infusibility of the burner resulting from such treatment. About August, 1879, we had obtained a vacuum pump which would produce a vacuum up to perhaps the one-hundred-thousandth part of an atmosphere, and during some time in the nexth month we had obtained a pump which would produce a vacuum up to the one-millionth part of an atmosphere. The experiments upon platinum and kindred metals were continued with both these forms of pump. The lamps possessing burners of such materials, however, were open to the objection that a device for regulating the temperature of the burner was desirable, and indeed necessary, in order to avoid the fusion of the burner by the passage of abnormal currents; since, in order to produce light economically with a metallic burner it was necessary to raise the temperature of the burner to so near the melting point that a slight increase in the electric current would melt the burner. The materials of the
43 burners were not of high specific resistance, and were expensive, and hence to obtain the requisite high resistance it was necessary to use fine metal wire in great lengths (as much as thirty feet), wound, to bring it within small space, upon a bobbin of infusible material. The desired economy, simplicity and durability were not yet obtained.

The conditions for maintaining this high vacuum were made possible by the employment of an entire glass chamber hermetically sealed, by which is meant a chamber entirely of glass, *i. e.*, of an entire piece of glass, all the joints of which, during the process of manufacture, are sealed by fusing the glass, thereby hermetically sealing the chamber in such a way that it maintains its vacuum continuously for any length of time. The production of such an entire glass chamber for enclosing the burner of an incan-

descent lamp was not an obvious thing, and was only arrived at gradually during my experiments with the lamps having metal burners.

Having this entire glass chamber exhausted to the one-millionth of an atmosphere, it occurred to me to try a comparatively short filament of carbon instead of the long platinum wire as a burner, and on the 21st of October, 1879, I introduced a carbonized cotton sewing thread, bent into a loop or horseshoe form, into the chamber so formed and exhausted. With this lamp I made the discovery that the filament of carbon under the conditions of high vacuum was commercially stable and would stand high temperatures without the phenomena of disintegration and oxidation, which took place in all the previous attempts that I knew of for making an incandescent lamp burner out of carbon. I then knew that through this discovery I had ascertained the conditions for the production of a successful incandescent lamp. Up to that time I had spent in money furnished by the Edison Electric Light Company, about $40,000.

When I tried the above experiment with the carbonized cotton thread, I expected that the carbon filament would gradually
44 wear away, but hoped that the wearing away would not be so great under the conditions of high vacua I had as to prevent its use at the temperature at which I proposed to run it.

The discovery I made, surprising as it was to me at the time, immediately enabled me to determine that fine filaments of carbon with high total resistance and in nature of high specific resistance, could be used as the incandescing conductors for electric lighting, by a system of multiple-arc distribution.

In addition to the fact that I had discovered the practical stability of carbon when used under proper conditions, the lamp which was made to fulfill such conditions, possessing, as it did, an entire glass chamber highly exhausted, with platinum leading-in wires, and the tenuous filament of carbon, had in addition other advantages and characteristics. These characteristics were that these lamps, being of high resistance and small radiating surface, permitted economy in the outlay for conductors. Smaller, and therefore, much less costly, conducting wires could be used for conveying the current, as owing to the high resistance of the lamps, weak currents only were necessary and sufficient energy to produce the desired luminosity could be forced through the conductors, leading-in wires, and filament, by increasing the electrical pressure or electro-motive force. If lamps of low resistance were placed in multiple arc in a single circuit, the aggregate resistance of all the lamps would be very low and conductors of correspondingly large dimensions would have to be used; otherwise a great loss of current in the form of heat would take place in the conductor. As for instance, if the resistance of a given lamp is increased one hundred times, then the conductor for such lamp could have a hundred times less area, the losses being the same in both cases. An economy of use also followed from the fact that the filament of carbon being small in cross-section, did not conduct heat any better than it did

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electricity, and therefore very little heat was conducted from
45 the glowing incandescent conductor to the clamps and appliances for supporting the same. Hence no special appliances were necessary to get rid of the heat conduction. The carbon was also inexpensive when compared with the great length of platinum necessary to obtain high resistance; the necessity for a thermal regulator was also obviated as the carbon filament was capable of standing much greater variations in current and temperature without fusing than was platinum.

Again, the high vacuum used in my lamp rendered the filament practically stable, and at the same time results in great economy in the use of electricity, as practically all the energy is lost by radiation and none by conduction. Hence my lamp was, I believe, the first electric lamp ever produced that proved commercially available for competition with lighting by gas, and was the first incandescent electric lamp capable of use to any practical extent.

The form and size of my lamp are also very convenient, as it is simple, small, light, portable, durable and admits of radiating the light in all directions, so that practically none is lost. Its size is such that it contains very little air, hence is quickly and economically exhausted of the same in the process of manufacture, and the whole lamp is so light in weight as to be used on chandeliers now used for gas, in great numbers. After use the lamp is thrown away, its low cost and long life permitting this without making this apparent waste appreciable.

At the time I introduced the carbonized thread into the entire glass vacuum chamber, I had become well acquainted with the properties of carbon, both organic and inorganic. In the years 1876 and 1877, I had engaged in the production of various articles of carbon, intending to establish a commercial business in such articles, especially for electrical purposes. In the experiments on my carbon telephone, paper of various kinds and thicknesses was carbonized and used. And, as before stated, I had determined experimentally that organic carbon, on the passage of a current in the open air, was immediately consumed by combustion, and that its life
46 could be prolonged to some extent, when heated electrically in the vacuum obtained with the ordinary air pump, but to no practicable extent. I had also, as before stated, determined that the lamp I desired should be of high resistance, and knew that as between organic and inorganic carbons the former possessed high resistance, while the latter did not. Therefore, when I introduced the carbonized cotton sewing thread into the highly exhausted entire-glass chamber, I knew that I was introducing a carbon of high resistance, the life of which I expected to be prolonged because of the absence of oxygen necessary to support combustion; but since my experiments upon platinum and other metals had shown me that disintegration took place in them upon the passage of the current in a vacuum as high as that into which I introduced the carbonized thread, I expected with carbon, a like disintegration. The result, however, showed me that the disintegration was so slight as to leave the carbon commercially stable. By "practically"

or "commercially" stable, I mean that no perceptible disintegration can be observed with carbonized filaments such as could be observed with burners of platinum, and indeed it is only after about six months' use that any disintegration of the carbons of modern incandescent lamps can ordinarily be noticed, and at the time I made the discovery of the stability of an extremely tenuous carbon filament in a highly exhausted entire-glass chamber, I would have been obliged to have run the lamp for a period of several hundred hours before I could determine that there was any disintegration whatever.

Prior to the production by me of the lamp which is patented by the patent in suit, all attempts at incandescent lighting by others than myself, so far as I know, had been carried on in containing chambers for the burners, made in two or more parts, purposely thus made separable so as to permit of the renewal of the burners when their life was spent. Such chambers could not successfully maintain a vacuum, and, in order to avoid combustion, it
47 was a custom largely followed to introduce into such chambers an inert gas with which the burner would not combine when heated. Even this device failed to produce a successful lamp, as the inert gas would gradually leak out and be replaced by the atmosphere, which would support combustion and quickly destroy the carbon. The inert gas also destroyed the burner by disintegrating or volatilizing it independent of oxidation. It also conducted the heat away from the burner with great rapidity, making necessary the expenditure of several times the energy to produce the same light, besides, by highly heating all parts of the lamp, tending to unseal the lamp.

It was also known, prior to 1879, that there were two ways of distributing current for electric lighting, to wit: by the multiple-arc method and by the series method. I at first started out with the series, but gradually came to the conclusion that the multiple-arc was the proper method, and to this idea I adhered until I had produced the proper form of lamp to be used therein; that is, a lamp of high resistance and small radiating surface.

No material advance had been made in the production of incandescent lamps for more than a quarter of a century previous to my taking the subject up. No such lamps had been made that were capable of practical use, nor had the conditions of use of a practical incandescent lamp been determined, nor had any comprehensive system been devised whereby practical lamps of small unit candle-power could be used to supplant or compete with gas as a general illuminant.

Prior to my discovery of the stability of carbon in a high vacuum, the direction of improvement in incandescent lighting was not toward a reduction in the size in cross-section of the carbon burner. The knowledge of the art, with regard to the properties of carbon, would and did lead inventors in other directions. The extreme fragility of carbon in small masses, and the rapidity with which such small masses would be consumed and disintegrated on
48 the passage of the electric current through them, deterred in-

ventors from experimenting therewith. My discovery for the first time informed the world of properties not before known or supposed to be inherent in carbon. That is, the property of stability in a high vacuum, and the additional property of flexibility and toughness when very tenuous in form, enabling its use in small masses.

Shortly after my said discovery in October, 1879, the public became aware of what I had claimed to have accomplished, and on December 21st, 1879, an account of my invention appeared in the "New York Herald" of that date. The general scientific opinion, both in this country and abroad, prior to my discovery, had been that the subdivision of the electric light could not be accomplished, and even after my lamp had been described in the public press, many scientific men, failing to understand the principles underlying its construction, asserted that my claim that so great a problem could be solved by so simple a device was unfounded.

Following the discovery made with the carbonized cotton thread, I immediately commenced to use carbon in other forms, and, prior to January 1st, 1880, I had made several hundred lamps, employing carbonized paper in the form of a horseshoe as the incandescing burner. These lamps were publicly exhibited during the holiday season of 1879 and 1880, in lighting up the streets and some buildings in Menlo Park, including my laboratory and office, and two or three houses. On New Year's eve, 1879, about three thousand people visited Menlo Park and inspected the lamps there burning.

Early in the year 1880, I ascertained the value of bamboo as a material for the filamental burner, and began its use, and such use has been continued by the assignees of my patents down to the present time.

In the spring of 1880 a steamship was lighted with my electric lamps, and from that time forward the commercial business of manufacturing and selling these lamps progressed with rapidity and developed into a business of large proportions and importance.

49 As I have said, the art was an entirely new one, and there were no factories established at that time, which could undertake the manufacture of apparatus; there was no body of skilled artisans who could undertake the work of installing an electric-light system. The necessary establishing of factories, together with the inventing and devising of numerous tools and methods of manufacture, and the education of men in the manufacturing of the new character of apparatus, was a cause of great delay in the introduction of my system. The experimental work had been carried on in my laboratory and machine shop at Menlo Park, until 1880, but I was then obliged to establish separate works for making the lamps, as there was no factory where they could be made, nor was there any skilled class of labor which could have made such lamps without my personal instruction, or the instruction of my assistants.

Shortly after the establishment of my lamp factory, as above stated, I also established another separate factory known as Bergmann & Company, for the manufacture of switches, meters, lamp sockets, and the various small parts required in electric-light plants,

as well as chandeliers, brackets and other forms of fixtures for supporting the lamps. These could not have been made or obtained in the general market, for the reasons previously stated.

Some time after this, still another factory, the Edison machine works, was established by me for the manufacture of dynamo machines. I also formed the Electric tube works for manufacturing underground conductors.

All of these factories I put up largely at my own expense, investing all the money I had made from my previous inventions. I established them because the business could not have been developed without them, and I placed over each as general superintendents men who had been connected with me in my laboratory, and who were familiar with the patented devices of my system.

50 When the manufacture of lamps and appliances had fairly started, the predecessor of the complainants herein undertook to establish on a large scale a central station in the city of New York, for the introduction of my incandescent electric lamps, and for the generation and distribution of electric current to users thereof. The said central station was operated for the first time September 4, 1882. Down to the time it started I had spent in experimental work, of money furnished by the Edison Electric Light Company, over ($450,000) four hundred and fifty thousand dollars, and had received no compensation for my own services.

In the installation of said first central station, I was almost constantly present, giving my entire time to the work, day and night. I was absolutely obliged to give it careful and constant supervision.

In illustration of what I say, I will state that I often worked in the trenches in the streets in the lower part of the city of New York in which the conductors were being laid, making many of the connections myself.

It was contemplated that when the first central station had been built and operated, the public were to form companies and install my system in various other districts similarly to the installation of the first New York central station. The great difficulty was in getting men to do the work of installation. There were not then, as now, electrical engineers who were familiar with my work, and who could be employed for the actual construction of a central station. The art was new, and men had to be educated, and I had to educate them.

I was compelled to form a construction department, and personally undertook the construction and installation of central-station plants in cases where my company had made contracts for the erection of plants. I gave this construction department my personal attention, neglecting my experimental work to a great degree.

I gathered around me a body of men whom I instructed in the details of my system. In my shops I established training
51 departments, so that the men I employed could become familiar with the apparatus that was to be used, and generally familiar with all arrangements of the business, to the end they might be able to superintend the installation of plants. I also opened night schools, where, with the blackboard, and by actually

doing and explaining the thing, workmen were trained. My mathematicians also wrote popular articles and technical treatises and instruction books, and prepared catechisms upon dynamos, meters and other forms of my apparatus for the use of our workmen. I expended the sum of ($54,000) fifty-four thousand dollars of my own money, in educating men in my construction department and in my shops, so as to develop and start this new business.

There has been no substantial departure from the methods which I established at that time, and not only have the competitors of my companies used my methods, but they have employed the men who were trained in my shops. All incandescent electric lamps which have been made for commercial use down to the present time have been in all substantial features copies of my lamp.

The substance of what is hereinabove stated was testified to by myself and perhaps by others in the litigation known as the "McKeesport" case, and in the suit against the United States Electric Lighting Company on my lamp patent No. 223,898, and is here repeated by request of complainants' counsel for the purpose of presenting the same in condensed form for the convenience of the court.

THOMAS A. EDISON.

Subscribed and sworn to before me this 29th day of October, 1892.

RICH'D N. DYER,
Notary Public, State N. J.

[SEAL.]

52 *Barker's Affidavit.*

United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

STATE OF PENNSYLVANIA, } ss:
County of Philadelphia, }

George F. Barker, being duly sworn, deposes and says as follows:

I am fifty-seven years of age, reside at Philadelphia, Pa., and am professor of physics in the University of Pennsylvania. I have been professor of chemistry and physics for upwards of thirty years: have paid particular attention during this time to the subject of electricity, not only for the purpose of teaching the same in my classes, but also for the purpose of my own investigations, and have always had an extended collection of apparatus at my disposal for the purpose of experiment. I am a member of the National Academy of Sciences, of the American Association for the Advancement of Science (of which I have been the president), of the Institute of Electrical Engineers of London, and the Société Internationale des

Électriciens of Paris. I acted as one of the United States commissioners to the International Electrical Exhibition at Paris in 1881; was a vice-president of the jury of award, and chairman of the subcommission of the jury appointed to report on incandescent lamps. I was also one of the delegates representing the
53 United States in the International Congress of Electricians, held at the same time in Paris; and I received from the French government the decoration of commander of the Legion of Honor. In 1884 I was appointed by President Arthur a member of the United States Electrical Commission.

During the past twenty years or more I have been frequently called upon to testify as an expert in patent causes, especially those involving electrical questions, particularly with reference to electric lighting.

I testified as an expert for the complainant in the case of the Edison Electric Light Company *vs.* The United States Electric Lighting Company, pending in the southern district of New York, and subsequently appealed to the U. S. circuit court of appeals for the second circuit, which suit was based upon the same patent as is the present case, and I had occasion in that case to examine, and became well acquainted with, the construction of the lamps of the defendant The United States Electric Lighting Company, which were found by the circuit court and by the circuit court of appeals to infringe the second claim of the patent in suit.

I also testified for the defendant in the case of the Consolidated Electric Light Company *vs.* The McKeesport Light Company, pending in the United States circuit court for the western district of Pennsylvania.

In connection with the two litigations referred to, I became well acquainted with the entire prior art relating to incandescent electric lamps, and such prior art was in said two cases shown to be as follows:

The prior art is capable of division into two subjects:

(1) The attempts to produce a durable lamp, and

(2) The attempts to subdivide the electric light.

54 I.

After the invention of the voltaic battery early in the present century, experiments were made which determined that both heat and light could be produced by the passage of the electric current through wires of platinum and other metals, and through pieces of carbon. The result of these experiments was taken advantage of as early as 1845, when Starr suggested, in the King English patent of that year, two forms of incandescent electric lamps, one having a burner made from platinum foil placed under a glass cover without excluding the air, and the other having a burner composed of a thin plate or pencil of carbon enclosed in a Torricellian vacuum. Starr's suggestions were followed by many experimenters, using both metal and carbon for the burner. The efforts of subsequent improvers upon lamps having carbon burners took the direction

principally of improvements in the compactness and portability of the instrument, in the sealing of the lamp chambers to prevent the admission of air to the burner, and in the means for renewing the carbon burner when it became consumed Thus, Roberts, in 1852, in an English patent of that year, proposed to cement the neck of the glass globe into a metallic cup, and to provide it with a tube or stop-cock for exhaustion by means of a hand pump; Lodyguine, Konn, Kosloff and Khotinsky, between 1872 and 1877, proposed various ingenious devices for perfecting the joint between the metal base and the glass globe, and also provided their lamps with several short carbon pencils which were automatically brought into circuit successively as the pencils were consumed; Bouliguine, in 1876 or 1877, proposed the employment of a long carbon pencil, a short section only of which was in circuit at any one time, and formed the burner, the lamp being provided with a mechanism for automatically pushing other sections of the pencil into position between the contacts to renew the burner; and Sawyer and Man proposed
55 in 1878 to make the bottom plate of glass instead of metal, and provided ingenious arrangements for charging the lamp chamber with an atmosphere of pure nitrogen gas.

The lamps referred to, and others of similar character, were not, however, durable lamps, and failed to become of any commercial value, due, among other things, to the shortness of the life of the carbon burner. The best of such lamps were provided with means for the ready renewal of the burners, and all of them had lamp chambers made in two or more parts with packed or cemented joints, or a liquid seal. The impossibility of excluding the air with the separable lamp-chamber constructions which were used, when such chambers were exhausted to a high degree of vacuum, led to the use of an atmosphere of nitrogen or other gas which does not support combustion, which, it was thought, could be maintained comparatively pure and without admixture with the external air. But, even under these latter conditions, it was found that the carbon burners were subject to a rapid disintegration or evaporation which experimenters assumed was due to the disrupting action of the electric current, and hence the conclusion was reached that carbon contained in itself the elements of its own destruction, and was not a suitable material for the burner of an incandescent electric lamp. On the other hand, platinum, although found to be the best for the purpose of all the metals, and not combining with oxygen at high temperatures as does carbon, required to be brought so near the melting point in order to give light that a very slight increase in the temperature resulted in its destruction. It was assumed that the difficulty lay in the material of the burner itself, and not in its environment Mr. Schwendler, a noted English electrical engineer, in his discussion of this subject in the "Telegraphic Journal" for 1879, makes the following statement:

"Unless we shall be fortunate enough to discover a conductor of electricity with a much higher melting point than platinum,
56 * * * and which at the same time does not combine at high temperature with oxygen, we can scarcely expect that

the principle of incandescence will be made use of for practical illumination."

This was the condition of the art when, as is well known, Mr. Edison took up the subject in the fall of 1878. After some preliminary experiments, confirming the results of former experimenters, it is well known that Mr. Edison turned his attention to the development of an incandescent lamp having a burner of platinum as being the most promising material for the purpose. His attempts took the direction of various means of coating the platinum wire with earthy materials, and of various ingenious contrivances called "thermal regulators," for maintaining the temperature of the burners below a certain maximum, so that the melting point of the platinum would not be reached. In the course of his experiments he made a remarkable discovery, namely, that the melting point of platinum can be raised by subjecting it to the intense heat of the electric current while the enclosing chamber is undergoing the process of exhaustion. To take full advantage of this discovery, and of the incidents connected with it, Mr. Edison enclosed his platinum burner in a highly exhausted glass chamber similar to the chambers which had been previously used by Crookes in his radiometer, made of an entire piece of glass; *i. e.*, with all joints closed by the fusion of the glass upon itself. This platinum lamp, however, although a great improvement upon those which had preceded it, was not a practical lamp, for many reasons. It still required the thermal regulator to prevent its destruction, and, even with that device, its life was of short duration; and, in order to get the necessary high resistance, a great length of very fine platinum wire had to be employed (about thirty feet), and this, in order to secure the small radiating surface required, had to be coiled upon a bobbin of infusible material in several layers, one upon the other, making the lamp
57 both expensive and difficult to construct. The next step taken by Mr. Edison was to substitute for the long burner of platinum in the highly exhausted entire glass globe a relatively short burner of carbon in filamentary or thread-like form. This substitution marked an epoch in the art, and was the step which converted failure into success. The experiments with this construction showed that, under the conditions of high and stable vacuum which the construction permitted, the disintegration of the carbon burner was reduced to such an extent that the burner had a useful length of life. It was found that the conclusion which had been before reached by the art, viz., that the disintegration of the carbon was due to the action of the electric current, was incorrect, and that that disintegration was the result of "air washing," or the attrition produced by the passage of the air over the highly heated surface of the carbon; and that, when the air was removed by the employment of a high vacuum, the disintegration did not take place, or, at least, was not sufficiently rapid to render the lamp impracticable for commercial use. In addition, it was found that this construction required no thermal regulator, and could be so cheaply made that the lamp could be thrown away when the burner was finally destroyed.

II.

Contemporaneously with the efforts to produce a durable incandescent electric lamp, attempts were also made to solve the problem involved in domestic or interior lighting, which problem was known as the "subdivision of the electric light." The art was provided with the arc lamp, which, as early as 1844, was sufficiently commercial for some uses, but the arc lamp gave too great a volume of light for use in dwellings, and the incandescent lamps which were being experimented with gave a light approximately
58 equal to that given by the arc lamp. It was seen that, before the electric light could be made useful for domestic purposes, some principle of subdivision would have to be discovered, which would permit each lamp to give a small amount of light approximating that given by a gas jet, and without an undue loss of energy. Sir William Thomson, the renowned scientist, stated in his testimony before the English parliamentary committee in May, 1879:

"It is quite possible that a plan of using electric energy for light might be found, and may yet be found, in which ten feebler lights will give a sum of light equal to that obtained by the same energy in one concentrated light."

In this statement Sir William Thomson represented the most advanced thought, recognizing the character of the discovery that was required, and asserting his belief in the possibility of such a discovery being made. Most experimenters and scientists, however, who had considered the problem, were not sanguine that such a discovery was within the range of possibility, and, indeed, asserted that it was not. Thus, Fontaine, the French experimenter and writer, published in his book on electric lighting, in 1877, the results of elaborate experiments, made with the best form of incandescent electric lamp then known, to determine the practicability of subdividing the light with such lamps. In his experiments he made various arrangements of the battery supplying the current, and placed first one lamp in the circuit, and then two lamps, and so on, increasing the number by one, and measuring in each instance the total amount of light given by the one or more lamps connected with the battery. Although by different arrangements of the battery, and with one lamp in circuit, he obtained from four Carcel burners, in one case, to as high as sixty-five Carcel burners in another case, yet he found, on putting more lamps in circuit, that the total amount of light rapidly decreased, until, when he reached the number of five lamps, the light in all the lamps was practically
59 extinquished. From these experiments he concluded that the incandescent lamp "is much more favorable to large foci than to the divisibility of the electric light."

The reason for the results obtained by Fontaine in his experiments was explained mathematically by other scientists, and was shown by them to be founded upon the inevitable results of the operation of natural laws, which were thus found to present an insurmountable obstacle to the successful division of the electric light. Thus, Mr. Preece, the electrician for the British general post office,

demonstrated mathematically, in papers and lectures published early in 1879, that the total light given by a number of electric lamps placed in the circuit will, with one arrangement, be inversely as the square of the number, and with another arrangement will be inversely as the cube of the number of lamps, and his conclusion was that "the division of the electric light is an absolute *ignis fatuus*." This conclusion was accepted generally by scientists and experimenters as correct, except in the case of Sir William Thomson, and, perhaps, some others, who believed that the obstacle was not an insurmountable one, but who had no remedy to propose.

Among experimenters, the only notable dissidents from the generally accepted view were Mr. Edison in this country, and Mr. Lane-Fox in Europe, who independently reached and announced the conclusion that the subdivision of the electric light could be accomplished, provided the radiating surface of the burner of the lamp was reduced in extent so that even with a high temperature of the burner only a moderate volume of light would be emitted, while at the same time the resistance of the burner was increased so as to enable the employment of relatively small conductors for leading the electric current to a number of lamps. The concrete theoretical solution of the problem, as thus stated by both Edison and Lane-Fox, was a burner having a high resistance and small radiating surface; or, more accurately stated, a burner having a high ratio of resistance to radiating surface. Lane-Fox, however, did not produce any practically useful form of incandescent electric lamp embodying this principle, which was known to him only as an unattained desideratum. On the other hand, Mr. Edison embodied that principle first in his platinum lamp having thirty feet of fine platinum wire, which by reason of its great length gave the desired high resistance, and by coiling that wire upon a bobbin of infusible material with the layers of the coil superimposed one upon another so that only the outer layer emitted light, the necessary small radiating surface was obtained; and, later on, he embodied the same principle in his carbon lamp by the employment in that lamp of a carbon burner having a filamentary or threadlike cross-section.

The discovery made by Mr. Edison of how to avoid the disastrous disintegration of carbon, permitted the use of a carbon burner in a tenuous or filamentary form—a form which was incapable of intelligent conception under the conditions which existed before that discovery, since even the larger rods and pencils employed were destroyed after a brief extent of use under such conditions, and smaller burners would have been destroyed in a proportionately shorter time. The carbon filaments employed by Mr. Edison were much smaller in diameter than any of the carbon rods and pencils disclosed by the prior art. They had a higher resistance and a smaller radiating surface, and, consequently, a higher ratio of resistance to radiating surface than such rods or pencils.

The principle underlying the carbon filament whereby both these features of high resistance and small surface are secured in the same burner is capable of a simple explanation: The resist-

ance of a conductor varies directly as its length, and inversely as the area of its cross-section or as the square of its diameter, while the radiating surface of a round burner varies directly as the length of the burner and inversely as its diameter. Thus, the resistance of a burner can be increased fourfold by increasing its length fourfold; its surface will also be increased four-
61 fold, and the ratio of resistance to surface will be unchanged. But by reducing the diameter of a burner one-half, its resistance will be likewise increased fourfold, while its surface is reduced twofold, thus increasing the ratio of resistance to surface eightfold. The carbon filament, therefore, is a structure in which high resistance is produced on the principle of reducing the diameter of a burner, rather than on the principle of increasing its length. Although a structure of great simplicity, Mr. Edison's carbon filament is the result of the intelligent correlation of many laws in the sciences of geometry, heat, light and electricity, which makes it one of the most remarkable creations of science.

After the production of a durable lamp and the discovery of the correct principle for getting a small light with the same economy as a large light, the great obstacle in the way of the commercial introduction of incandescent lighting was the large size and cost of copper conductors necessary to carry the current to the lamps. The filament of carbon, due to the increased resistance relative to its radiating surface which it afforded, made a revolutionary advance in the direction of lessening the size and cheapening the cost of such conductors. In this connection, I refer to a table, appended hereto and marked "Exhibit A," which was prepared for use in the suit against The United States Electric Lighting Company, and in which a comparison is made between all the filamentary and rod burners found definitely established in the record in that case, with relation to their relative ratios of resistances to radiating surfaces, and the results of those ratios on the size and cost of conductors. The first five burners referred to in the table are filamentary burners, the first and fifth being respectively the smallest filament specifically mentioned in the patent, and the filament of the
62 model on file in the Patent Office as a part of the patent, while the three intermediate burners are those of the lamps of the United States Electric Lighting Company upon which the suit was based, and which both the circuit and appellate courts decided infringe the second claim of the patent in suit. The last eight burners are the old rod burners. The information furnished by this table in the several columns is plainly indicated by the descriptions at the head of the columns. The table shows that even the step from the smallest rod to the largest filament was one which involved a remarkable saving in the size and cost of conductors, while the difference between an average filament and an average rod is shown to involve a difference in the expense of conductors greater than the difference between 1 and 300; *i. e.*, the conductors of an electric-lighting plant using average rod burners would cost upwards of three hundred times those of a plant using average filamentary burners.

The patent in suit, No. 223,898, describes the lamp produced by Mr. Edison as the result of his discovery of how to prevent disintegration of carbon and his correlation of the various laws involved in the subdivision of the electric light. The patentee refers to the construction employed in prior lamps, involving the use of low-resistance rod burners and of separable lamp chambers, and points out that such lamps cannot be worked in great numbers in multiple arc without the employment of main conductors of enormous dimensions, and that the carbon burners of such lamps are rapidly consumed. He then discloses the true reason for the consumption of such carbon burners, even when no oxygen is present. He says:

"The use of a gas in the receiver at the atmospheric
63 pressure, although not attacking the carbon, serves to destroy it in time by 'air-washing,' or the attrition produced by the rapid passage of the air over the slightly coherent, highly heated surface of the carbon."

In this statement he corrects the error which had prevailed, namely, that the disintegration of the carbon was due to the action of the electric current. The patentee then states that he has reversed the practice theretofore followed; and he then refers to his discovery of the stability of carbon in a high vacuum in the following language:

"I have discovered that even a cotton thread properly carbonized and placed in a sealed glass bulb exhausted to one-millionth of an atmosphere offers from 100 to 500 ohms resistance to the passage of the current, and that it is absolutely stable at very high temperatures."

The patent describes the manufacture of the carbon filaments by the carbonization of various materials, such as cotton and linen thread, wood splints, papers, fibrous vegetable substances and carbon compositions. In illustration of the size of the filament, the threads mentioned are significant, while in one instance the patent speaks of rolling out the compound of lampblack and tar into a wire as small as seven one-thousandths of an inch in diameter, and a filament of that diameter before carbonization would be, after carbonization, between four and five one-thousandths of an inch in diameter. This is the extreme illustration of the patent in the direction of small diameter, while the extreme illustration in the direction of a maximum diameter is furnished by the drawings of the patent and by the Patent Office model, which latter has a burner of about $\frac{1}{64}$ of an inch in diameter. The patent describes the connection of the carbon filament with the platinum wires, the placing of the filament in a globe made entirely of glass, and the exhaustion of such globe by a mercury pump, after which the exhaust tube is
64 hermetically sealed. The second claim of the patent in suit is as follows:

"The combination of carbon filaments with a receiver made entirely of glass and conductors passing through the glass, and from which receiver the air is exhausted, for the purposes set forth."

The combination set forth in this claim involves the feature of the employment of the carbon filament for the burner, and the enclosure

of that burner in an exhausted receiver made entirely of glass, through the walls of which the platinum wires which lead the current to the burner pass; thus describing a structure involving the two results of Mr. Edison's work, namely, the correlation of the various laws involved in the subdivision of the electric light in the production of the carbon filament, and the discovery of the cause of the disintegration of carbon and the employment of the exhausted entire-glass chamber as a remedy—the whole constituting the incandescent electric lamp, which has gone into wide commercial use and has brought about the establishment of a new industry of great commercial value.

I have examined the six Exhibits Sawyer-Man Company's Lamps in the possession of complainants' counsel, three of which are marked "Complainants' Exhibit Defendant's 110-volt Lamp," Nos. 1, 2 and 3, and three of which are marked "Complainants' Exhibit Defendant's 50-volt Lamp," Nos. 4, 5 and 6, and have also read the affidavit of John W. Howell describing certain tests of such exhibit lamps. From the information furnished by said affidavit, and from my inspection of the exhibit lamps themselves, I find in each of these lamps a carbon, filamentary or threadlike in size, and properly carbonized, used as the burner, a receiver made entirely of glass, and conductors passing through the glass, and from which
65 receiver the air is exhausted to such an extent that disintegration of the carbon due to the "air-washing" action of surrounding gases or to any other cause, is so far reduced as to leave the carbon practically stable. In other words, I find in each of these exhibit lamps all the features of construction described in the second claim of the patent in suit, brought together into the same relation and producing the same results, and taking advantage of the two elements of Mr. Edison's work which have been before referred to.

The relation of the burners of the exhibit lamps to the burners described by way of illustration in the patent in suit, and to the burners of the United States Electric Lighting Company which were found to infringe the second claim of the patent in suit, with relation to the saving which would be effected by each burner in the size and cost of conductors, will be seen by reference to the table, "Exhibit A." The burners of defendant's 110-volt lamps should be placed in that table between the first and second filamentary burners, while the burners of defendant's 50-volt lamps should be placed between the second and third filamentary burners.

The lamps of the defendant in this case are the same in all substantial respects as the lamps of the United States Electric Lighting Company, which were before the court in the suit already decided, and bear the same relation to the patent here in suit.

GEORGE F. BARKER.

Sworn to and subscribed before me this 28th day of October, 1892.

W. M. TAYLOR,
Notary Public.

[SEAL.]

(See table marked p. 66.)

67 *Herrick's Affidavit.*

Circuit Court of the United States, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

UNITED STATES OF AMERICA,
Southern District of New York, } *ss:*

Jacob H. Herrick, being duly sworn, deposes and says as follows:

I am the president of the Edison Electric Light Company, one of the complainants herein, and I am also vice-president of Edison General Electric Company, the other complainant. From my connection with these companies I have become acquainted with the history of the litigation in which Edison Electric Light Company and its predecessor, The Edison Electric Light Company, have been involved relating to the subject of incandescent electric lamps, and I have also become acquainted with the history of the defendant company.

In May, 1885, suits were brought on the Edison lamp patent here in suit, No. 223,898, against The United States Electric Lighting Company, The Consolidated Electric Light Company, and against other companies, in the circuit court for the southern district of New York. Pleas were filed in these cases, setting up, among other things, the expiration of the first five-year term of the Canadian patent on November 17th, 1884. Amended bills were filed, and other pleas were entered setting up the same defense as in
68 the original pleas. The plea was set down for argument in the suit against The United States Electric Lighting Company, which was treated as a test case, and the questions raised were argued first on February 28th, 1887, and again in April, 1887, and in May of that year a decision was made by his honor Judge Wallace sustaining the plea in said case. The complainant, however, obtained leave to take testimony as to the facts set up in the plea, and the taking of that testimony was in progress when, in January, 1889, the Supreme Court decided the case of Bate Refrigerating Company *vs.* Hammond (129 U. S., 151), which overruled the circuit court in its interpretation of section 4887 of the Revised Statutes and removed the obstacle to progress in the Edison suits. Proceedings were accordingly immediately commenced in the test case against The United States Electric Lighting Company to have the bar of the plea removed on the ground of change in the law, and his honor Judge Wallace granted an order to show cause why a rehearing and re-argument upon the sufficiency of the plea should not be had. Subsequently, by stipulation dated February 12th, 1889, the defendant The United States Electric Lighting Company agreed to allow its plea to stand as a special matter and to answer generally to the charges of the bill. Thereafter, as rapidly as it was possible for the

counsel of the Edison Company to do so, proceedings were pushed to obtain an adjudication upon the patent here in suit, resulting in the sustaining of the patent by the circuit court on July 14th, 1891, and the affirming of the decree of such circuit court by the circuit court of appeals on October 4th, 1892. Prior to the taking of testimony in this suit, the defendant The United States Electric Lighting Company, as I am informed and believe, entered into an arrangement with the Westinghouse Electric Company of Pittsburgh, Pennsylvania, whereby the Westinghouse Company secured control of the business of the United States Electric Lighting Com-
69 pany, and also of the litigations in which said company was involved, and the defendant was represented in the conduct of the suit by the counsel of the Westinghouse Electric Company.

After the decision of the circuit court in the suit against the United States Electric Lighting Company on the Edison patent, papers were prepared and served in the suit against the Consolidated Electric Light Company for a motion for preliminary injunction, such motion being noticed for the 23d of September, 1891. In that notice the complainant asked that the Sawyer-Man Electric Company be included in the injunction as the agent of the Consolidated Electric Light Company, since it was well known that the Consolidated Company owned all the stock of the Sawyer-Man Company, and these companies had announced and advertised that the Sawyer-Man Company was acting as the agent of the Consolidated Company. Subsequently, affidavits were served on behalf of the Consolidated Electric Light Company, and in these affidavits it was denied that the Sawyer-Man Electric Company was the agent of the Consolidated Electric Light Company, it being explained that the statements to that effect had been made in a purely popular sense and did not, in fact, show the legal relation existing between the two companies. Thereupon, and on December 28, 1891, the Edison Electric Light Company began suit on the Edison lamp patent against the Sawyer-Man Electric Company in the United States circuit court for the southern district of New York, with a view of moving for a preliminary injunction against such defendant. In view, however, of the early hearing of the case against the United States Electric Lighting Company on appeal, it was concluded not to press the motions for a preliminary injunction until after the decision of the appellate court. After the opinion of the appellate court was filed, and having in view the desirability of joining Edison General Electric Company as a party complainant, the complainant Edison Electric Light Company, on October 14,
70 1892, moved to discontinue its suit against the Sawyer-Man Electric Company without prejudice, which motion was granted and the order of discontinuance entered October 17th, 1892.

In June, 1885, the Consolidated Electric Light Company brought suit against the Edison Electric Light Company and Thomas A. Edison, in the circuit court for the southern district of New York, upon patent No. 317,676, granted March 12th, 1885, to William E. Sawyer and Albon Man, which patent it was claimed covered the Edison incandescent electric lamp. A demurrer was filed to the

bill on a question of title, which demurrer was argued and overruled, and in May, 1886, (the defendants having filed their answer), the complainant began to take testimony, and continued taking testimony until July, 1888, when it closed its *prima facie* case, after having made a record of nearly two thousand pages. The complainant was represented in the conduct of that suit by Mr. Amos Broadnax, who had for many years been the counsel of the companies operating under the Sawyer & Man patents. This suit, however, was not proceeded with.

In November, 1887, as I am informed and believe, an arrangement was entered into between the Consolidated Electric Light Company and the Westinghouse Electric Company, of Pittsburgh, whereby the Consolidated Company substantially passed into the control of the Westinghouse Electric Company, George Westinghouse, Jr., becoming the president of the Consolidated Company, and the Westinghouse Company taking control of the litigations of the Consolidated Company, and especially its litigation on the patent of Sawyer & Man, before referred to. Instead of continuing the suit pending in the southern district of New York, a new suit was brought on the Sawyer & Man patent in the western district of Pennsylvania against the McKeesport Light Company, a licensee of the Edison Electric Light Company, using the Edison incandescent electric lamps. This suit was pushed forward with great rapidity, and a record, consisting of upwards of four thousand printed pages, was prepared, and the case argued before Mr. Justice Bradley
71 and Judge McKennan in the spring of 1889. The case was decided in October of that year, the patent being declared invalid and the bill dismissed. The opinion of the court in that case was prepared by Mr. Justice Bradley.

In confirmation of my statement that the Westinghouse Electric Company was the real complainant in the suit on the Sawyer & Man patent decided by Mr. Justice Bradley, and was the real defendant in the suit on the Edison patent decided by the circuit court of appeals for the second circuit on October 4th, 1892, I refer to the stipulation made between the counsel in the suit against the United States Electric Lighting Company, printed on page 5014, vol. 7, of the record in that case. Said stipulation reads as follows:

"It is admitted by defendant's counsel that in the suit of the Consolidated Electric Lighting Company against the McKeesport Light Company, pending in the circuit court for the western district of Pennsylvania, and decided by Mr. Justice Bradley October 5th, 1889, whose opinion appears at page 382 of vol. 1 of the printed records, the complainant was controlled by the Westinghouse Electric Company of Pittsburgh, and the said suit was conducted for the complainant by the counsel of the said Westinghouse Electric Company. It is also admitted by defendant's counsel that the defendant in the present suit, The United States Electric Lighting Company, is controlled by the said Westinghouse Electric Company, and that the defense in this suit has been conducted by the counsel of the said Westinghouse Electric Company."

The relation of the defendant The Sawyer-Man Electric Company to the litigations upon the Edison patent and the Sawyer & Man patent will appear from the following facts, which I state on information and belief:

The Consolidated Electric Light Company was organized in September, 1882, its organization being largely based upon the ownership of various patents issued to Sawyer & Man. It entered upon the manufacture of incandescent electric lamps and carried on that manufacture in a small way down to October, 1886,
72 its factory being located in the city of Brooklyn. In September, 1886, the defendant Sawyer-Man Electric Company was organized for the special purpose of manufacturing incandescent lamps under the Sawyer & Man patents owned by the Consolidated Electric Light Company. On October 29th, 1886, the Consolidated Electric Light Company made and delivered to said Sawyer-Man Electric Company a full and exclusive license under its principal patents relating to the manufacture of lamps, subject only to two licenses previously granted by the Consolidated Company to others, and at the same time the Consolidated Company sold its entire lamp-manufacturing business to the Sawyer-Man Electric Company, said latter company taking a lease of the factory plant of the Consolidated Company for twenty-five years and buying the stock of material and apparatus on hand of said Consolidated Company. And thereupon said Sawyer-Man Electric Company entered upon the manufacture and sale of incandescent electric lamps at the factory in Brooklyn, and has continued in said business down to the present time as the licensee of the Consolidated Electric Light Company. About December, 1887, the Brooklyn factory was destroyed by fire, and thereafter the lamp factory of the Sawyer-Man Electric Company was removed to buildings on West Twenty-third street in New York city, which were owned by the Consolidated Electric Light Company, where it now is.

In November, 1887, an arrangement was made with the Westinghouse Electric Company, by which, among other details, the Consolidated Electric Light Company purchased the lamp factory of the Westinghouse Electric Company, and the Westinghouse Electric Company agreed to purchase its incandescent electric lamps from the Sawyer-Man Electric Company, and at the same time the Consolidated Electric Light Company purchased the entire capital stock and assumed the control of the Sawyer-Man Electric Company. This arrangement was announced in a circular letter to the stock-
73 holders of the Consolidated Electric Light Company and the patrons of the Sawyer-Man Electric Company, dated November 15, 1887, and signed "Hugh R. Garden, vice-president and counsel," a copy of which is hereto annexed and marked "Exhibit A." About the same time, as I am informed and believe, George Westinghouse, Jr., the president of the Westinghouse Electric Company, became the president both of the Consolidated Electric Light Company and of the Sawyer-Man Electric Company, and other officers of the Westinghouse Company were likewise elected as officers of both the Consolidated Electric Light Company and the

Sawyer-Man Electric Company. Some time prior to October 10, 1888, negotiations were opened between the Consolidated Company, which then owned and controlled the entire stock of the Sawyer-Man Electric Company, and the Westinghouse Electric Company, for the lease by the latter of the property of the said Consolidated Company, which negotiations terminated in the acquisition of such lease, as will be seen by the annexed copies of "Proposition and acceptance" and "Memorandum of agreement," both dated October 10, 1888, and marked respectively Exhibits B and C. From said memorandum of agreement it appears that, for a consideration of one hundred and fifty thousand dollars annually, payable in quarterly installments, the Consolidated Company leased its premises on West Twenty-third street, together with its plant, machinery, tools, &c., to the said Westinghouse Electric Company; also it granted to said Westinghouse Electric Company its patents and patent privileges and all other assets which it possessed; also it granted:

"Fourth. All the property, rights, assets and business of the Sawyer-Man Electric Company, of the State of New York, which property, rights and assets are more particularly described in Schedule D to be hereto annexed and made part of this agreement; the entire capital stock of the said Sawyer-Man Electric Company to be transferred to the party of the second part (the Westinghouse Electric Company), or its nominees in trust, for the purposes of this agreement."

74 In addition to the sum of one hundred and fifty thousand dollars yearly, the Westinghouse Company agreed to pay one cent for each and every lamp sold by it.

Subsequent to this lease, and some time early in 1889, as I am informed and believe, the Westinghouse Company acquired by lease the United States Electric Lighting Company. I am also informed and believe that the business controlled by the Westinghouse Company through its various leases was divided, so that the manufacture of incandescent electric lamps was to be conducted solely by the Sawyer-Man Electric Company at the factory in West Twenty-third street, and that it has been so conducted by that company down to the present time, and that the Consolidated Electric Light Company and the Sawyer-Man Electric Company, since October, 1888, and possibly since November, 1887, and the United States Electric Lighting Company since early in 1889, have been merely branch establishments of the Westinghouse Electric Company, with a common interest and participation in the litigations with the Edison Electric Light Company on the Edison lamp patent and on the Sawyer & Man lamp patent. These several companies have been announced in various business circulars as constituting "the Westinghouse associated interests," and the division of the various branches of the business between the several companies has been stated in circulars, catalogues, and otherwise, for the information of customers.

In support of the statement that the Sawyer-Man Electric Company became, and now is, the manufacturer of incandescent elec-

tric lamps for the various companies composing the Westinghouse associated interests, including the United States Electric Lighting Company, I refer to the deposition of James A. Vandegrift given for the defendant in the suit against the United States Electric Lighting Company, January 22, 1890. At page 1486, of volume 3 of the record in that suit, Mr. Vandegrift testifies as follows:

"1 Q. What is your name, age, residence and occupation?
75 A. James A. Vandegrift; age, 28; residence, Newark, New Jersey, manufacturing incandescent electric lamps in the Sawyer-Man Electric Company.

"2 Q. Have you ever been connected in any capacity with the defendant in this suit, The United States Electric Lighting Company? A. I have, having charge of the manufacture of their incandescent electric lamps for three and one-half years. I went into the employment of the United States Electric Lighting Company in January, 1880, and continued with them until May 1889."

At the beginning of Mr. Vandergrift's cross-examination (p. 1488) appears the following testimony:

"17 X Q. Why did you leave the United States Company in May, 1889? A. To enter the employ of the Sawyer-Man Electric Company.

"18 X Q. What change, if any, in the business of the United States Electric Lighting Company caused you to make this change? A. Its lease by the Westinghouse Electric Company.

"19 X Q. Please explain what change in the business this produced so far as it affected you? A. The manufacture of incandescent lamps was transferred from the factory of the United States Company to that of the Sawyer-Man Company.

"20 X Q. Were you in charge of the manufacture of the incandescent lamps for the United States Company for the three and a half years preceding May, 1889? A. I was."

I further refer to the deposition of Oliver B. Shallenberger given for the defendant in the same case, beginning January 21, 1890. It appears from Mr. Shallenberger's deposition that he was, at the time of testifying, the electrician for the Westinghouse Electric Company. He says, under date of January 21, 1890 (vol. 3, p. 1376):

"For some months the Westinghouse Electric Company has been producing ten thousand or more carbons daily for the use of the Sawyer-Man Company of New York."

Later on, in his deposition, under date of January 24,
76 1890, Mr. Shallenberger gives a table of measurements of these carbons which were being made at that time by the Westinghouse Electric Company for the Sawyer-Man Electric Company, and under date of January 25, 1890 (p. 1468), he gives the following testimony:

"142 X Q. What, if any, are the relations between the Westinghouse Company and the defendant in this case with respect to the manufacture of the lamps referred to in your table of measurements? A. The lamps used by the defendant company are made with carbons manufactured by the Westinghouse Electric Com-

pany. These lamps are manufactured by the Sawyer-Man Company of this city at the present time.

"143 X Q. How about the lamps at present used and sold by the Westinghouse Company and by the Sawyer-Man Company and by the Consolidated Company? A. The same answer would apply to these lamps also.

"144 X Q. That is, the lamps used and sold by these several companies, including the defendant company, are the same lamps and made in the same way and by the same manufacturing concerns? A. Yes."

The Sawyer-Man Electric Company, as I am informed and believe, with the exception of lamp sockets and some small details closely related to the lamps, manufactures no other part of the electric-lighting apparatus, except incandescent electric lamps, and these lamps it has not only sold to the companies forming the Westinghouse associated interests, but also to the public generally, including users of the apparatus of the Edison Companies.

On October 4, 1892, the circuit court of appeals for the second circuit filed an opinion in the suit against the United States Electric Lighting Company which had previously been decided by the circuit court and had been taken on appeal to said circuit court of appeals, such opinion confirming the decree of the court below, sustaining the validity of the Edison lamp patent. Immediately after the filing of said opinion the Westinghouse Company began the issue of advertisements, of which "Exhibit D," hereto annexed and taken from the "Electrical Engineer" for October 12, 1892,
77 is an example. This advertisement the Westinghouse Electric Company has continued to publish since as early as October 9, down to the present date. It has also published another advertisement relating to this same subject, of which "Exhibit E," hereto annexed, taken from the "Electrical Engineer" for October 19, 1892, is a copy.

The manufacture of incandescent electric lamps under the patents owned by Edison General Electric Company is at the present time conducted by the Edison General Electric Company at its factory at Harrison, New Jersey. This factory has been equipped with a capacity far beyond that required by the business at present done by the Edison General Electric Company, with a view of being prepared to supply the demands of the trade, should other manufacturers be enjoined under the Edison patent here in suit. I am informed and believe that the capacity of the factory of the Edison General Electric Company is sufficient to supply all the demands of the trade for incandescent electric lamps of all kinds under reasonable conditions as to time of delivery. I am also informed and believe that the lamps made by Edison General Electric Company of all types, at the present time, including its 50-volt lamps, are of an entirely commercial character, and equal substantially in all respects to the lamps of other manufacturers.

No other license to manufacture has ever been granted except that granted to Edison General Electric Company and its predecessors in interest, the business policy of said Edison Electric Light

Company and said Edison General Electric Company and their predecessors being to retain to themselves the gains and profits arising from the manufacture of incandescent electric lamps.

J. H. HERRICK.

Subscribed and sworn to before me this 28th day of October, 1892.

WM. H. MEADOWCROFT,
[SEAL.] *Notary Public* (*No.* 234), *New York County.*

78 HERRICK'S EXHIBIT A.

Garden Circular.

The Consolidated Electric Light Company.

Executive offices, Mutual Life building, 32 Nassau street.

NEW YORK, *November 15th*, 1887.

To the stockholders of the Consolidated Electric Light Company and to the patrons of the Sawyer-Man Electric Company.

GENTLEMEN—The Consolidated Electric Light Company, owner of the Sawyer-Man patents, has, from time to time, received numerous applications for licenses to manufacture and sell the incandescent lamps, and other electrical apparatus covered by its patents, which applications it has been constrained to decline.

With the view, however, of utilizing the inventions of others who have achieved success in the electric-lighting field, and at the same time of concentrating and enlarging its business to meet the constantly increasing demand for its apparatus, the Consolidated Electric Light Company has recently completed the following important transactions, which are of interest to its stockholders and patrons.

First. It has granted to the Thomson-Houston Electric Company a license to manufacture and use incandescent electric lamps and attachments, in plants and stations established by that company in combination with its extensive and popular arc-lighting system, upon an agreed royalty; and has also entered into a contract with that company, whereby the interests of both companies in the manufacture and sale of electrical apparatus, other than that covered by the Sawyer-Man patents, are mutually promoted.

79 Second. It has purchased from the Westinghouse Electric Company its valuable electric lamp factory and equipment at Pittsburg, Pa., with a guaranteed capacity of five thousand incandescent lamps per day; and has entered into an agreement with the Westinghouse Company, whereby the purchasers from that company of its alternating apparatus (the most economical and efficient for central-station lighting) shall also purchase from the Consolidated Electric Light Company the Sawyer-Man lamps and attachments, for use with such apparatus, and shall have the protection of the Sawyer-Man patents.

Third. It has purchased the stock and assumed the control of the Sawyer-Man Electric Company, which has heretofore been its sole exclusive licensee, and will conduct its commercial department through the agency of the Sawyer-Man Electric Company.

Fourth. It has purchased that valuable and extensive manufacturing and business property, Nos. 510 to 534 West Twenty-third street, in the city of New York, having a front of 325 feet on said street, with floor space of 117,000 square feet ready for use, and with a capacity for an increase to 200,000 square feet; being sufficient for the establishment, at that point, of its general offices and of its principal legal, technical, manufacturing and commercial departments.

To meet the increasing business demands of the Westinghouse Company, the Thomson-Houston Company, the Sawyer-Man Company and the general public, the Consolidated Electric Light Company will, within a short time, manufacture at its combined factories at least ten thousand electric lamps, with the necessary electrical attachments per day; and this demand, based upon the reputation for excellence which these companies have attained in their respect*ful* fields of usefulness, will greatly enhance the value of its property and will promote the interests of incandescent electric lighting to an extent hitherto unknown.

This recognition of the Sawyer-Man patents, and consequent
80 concentration of power in the Consolidated Electric Light Company, is attended with a corresponding ability on the part of this company to protect itself from infringement of its patents, and steps have recently been taken in the institution of new suits against infringers and in the vigorous prosecution of those heretofore instituted, which it is believed will speedily and effectually secure to the company the additional profits from that source to which it is justly entitled.

Very respectfully, HUGH R. GARDEN,
Vice-President and Counsel.

81 HERRICK'S EXHIBIT B.

(*Westinghouse Proposition and Acceptance.*)

The Westinghouse Electric Company having made a business proposition in writing to the Consolidated Electric Light Company, of which the following is a copy, to wit:

"LENOX, MASS., *September 29th*, 1888.

"H. R. Garden, Esq., V. pres't Consolidated Electric Light Co., New York, N. Y.

"DEAR SIR—I believe, as I expressed to you, that the developments in electric lighting are of such a character that the prices for lamps will have to be largely reduced if the bulk of the trade is to be secured to your company.

"By reason of the advantages that will accrue to the Westing-

house Electric Company by the concentration of the management of the three companies, the Westinghouse Electric Company, the Consolidated Electric Light Company and the Sawyer-Man Electric Company, whereby large savings can be effected that will justify a considerable reduction in the selling prices of the lamps, and which will at the same time ensure a proper return on the capital of the Consolidated Company, in which, as you are aware, the Westinghouse Electric Company is largely interested.

"On behalf of the Westinghouse Electric Company, I make you the following proposition, which, if accepted, is to be put into the form of a complete agreement satisfactory to both parties:

"First. The Westinghouse Electric Company will lease the property, rights, assets and business of the Consolidated Electric Light Company, and with it the property, rights, assets and business of the Sawyer-Man Electric Company, for the full period of the present legal existence of the Consolidated Electric Light Company, or any extensions thereof.

"Second. It will pay quarterly, as a rental, the sum of thirty-seven thousand five hundred dollars, which sum is equal to
82 six per cent. on the authorized capital, $2,500,000 of the Consolidated Electric Light Company; and will further pay quarterly the sum of one cent for each lamp sold or upon which the Westinghouse Electric Company receives a royalty or other valuable consideration.

"Third. The Westinghouse Electric Company will discharge the obligation, both as to principal and interest of the Consolidated Company with reference to its mortgage bonds on the property now occupied by the company on Twenty-third street, New York.

"Fourth. The Westinghouse Electric Company will subscribe for the remaining stock, $125,000, now in the treasury of the company, paying therefor eight thousand dollars per quarter until the whole of said subscription is paid, stock being issued as payments are made. The payments made for this stock, together with the sum of sixty-six hundred dollars per quarter out of the earnings of the company, to form a sinking fund for the discharge, at maturity or otherwise, of the bonded obligations of the company other than those referred to in paragraph third.

"Fifth. The Westinghouse Electric Company will assume all of the current liabilities of the company, except the bonds referred to in paragraph fourth, and interest on same, and is to have the benefit of all of the accounts receivable and other current assets of the company whatsoever.

"Sixth. The Westinghouse Electric Company will receive, and there shall be transferred to it or its nominees, in trust, for the purpose of carrying on the business under the lease, all of the capital stock of the Sawyer-Man Electric Company.

"Seventh. The Consolidated Company shall do at all times all things that may be required to give to the Westinghouse Electric Company the full benefit of all of the rights and privileges of said company that are necessary for the purposes of this lease; it shall pay all taxes arising from the payment of dividends, but all other

taxes that may be levied upon the property, franchise or business of the company shall be paid by the Westinghouse Electric Company.

83 "Eighth. At least so much of the sum agreed to be paid in paragraph second hereof, shall be applied by the Consolidated Electric Light Company to the payment of dividends as shall secure to the stockholders of said company continuous dividends, beginning April 1st, 1889, of not less than one per cent. per quarter on all of its capital stock of $2,500,000, until the indebtedness of the company is paid, and thereafter such increase shall be made in the quarterly dividends as shall absorb all of the earnings after deducting the necessary and reasonable expenses of the company.

"Ninth. In addition to the security afforded by this agreement, the property conveyed by the Consolidated Company in pursuance thereof, shall be held as further security, and shall at all times be kept fully insured by the Westinghouse Electric Company; and the Consolidated Company shall have a right to the possession thereof on failure of the Westinghouse Electric Company to make any of the payments defined herein within a period of ninety days after the same shall become due.

"Respectfully,

"GEO. WESTINGHOUSE, JR., *President.*"

Now, therefore, we, the undersigned stockholders of the said Consolidated Electric Light Company, approve the said proposition, and authorize and request the trustees of said Consolidated Electric Light Company to accept the same, and to prepare and have executed by the proper officers of said company all instruments necessary to perfect said proposition into an agreement and contract between said corporations, hereby consenting to the same to the full extent of our several holdings of, and interest in, the stock of said Consolidated Electric Light Company, and hereby ratifying and confirming all that the said trustees and officers may do in furtherance thereof.

And we, the equitable owners of the pooled stock so called,

84 hereby authorize and instruct the trustees holding the same in trust, to sign this consent as holders of the said stock.

HUGH R. GARDEN.
HUGH R. GARDEN, *Trustee.*
THE WESTINGHOUSE ELECTRIC CO.,
GEORGE WESTINGHOUSE, JR., *President.*
EDWIN S. THAYER.
H. B. THAYER,
By E. S. THAYER, *Attorney.*
LUCY R. GARDEN.
HUGH R. GARDEN, *Trustee for P. B. Plumb.*
HUGH R. GARDEN, *Trustee for Norris Peters.*
R. W. HUNTER,
By H. R. GARDEN, *Attorney.*

WM. WINDOM,
By HUGH R. GARDEN, *Attorney.*
JNO. M. ROBERTSON.
J. HERON CROSMAN.
JACOB HAYS.
MARY L. HAYS,
By JACOB HAYS.
ESTATE WM. H. HAYS,
By JACOB HAYS, *Executor.*
JOSEPH TATE,
By JACOB HAYS.
JOHN C. CALHOUN.
CELINA S. HOLLINS,
Per F. C. HOLLINS.
HENRY C. DAVIS.
NAOMI L. DAVIS,
By HENRY C. DAVIS.
CHAS. H. BANES.
EDWIN J. HOUSTON.
GEORGE. J. GARDE.
H. A. STILES.
HORACE LITTLE.
D. C. OYSTER,
Per HORACE LITTLE.
WM. MACK,
By GEORGE WHEATLAND, *His Attorney.*
CHAS. C. ALLEN.
CHAS. A. MILLER.
WM. P. SHINN.
SAWYER-MANN ILLUMINATING COMPANY, LIMITED,
By WILLIAM P. SHINN, *President;* [L. S.]
HUGH R. GARDEN, *Secretary and Treasurer.*
85 W. T. CARMODY.
SAWYER-MAN ELECTRIC COMPANY,
By HENRY C. DAVIS, *President;* [L. S.]
H. R. GARDEN, *Secretary.*
E. ST. JOHN HAYS.
THE AMERICAN ELECTRIC LIGHT COMPANY,
JOHN ROONEY, *President,* [L. S.]
By EDWIN S. THAYER, *Treasurer.*
HATTIE L. THAYER,
By EDWIN S. THAYER, *Attorney.*
ABBY BARSTOW,
By EDWIN S. THAYER, *Attorney.*
TERESA E. ROONEY,
By JOHN ROONEY.
AMOS BROADNAX.
EDWARD J. BROWN.
CHAS. G. BORNMANN.
CHAS. G. BORNMANN, *Trustee.*

CHAS. A. CHEEVER,
Per W. L. CANDEE.
ALBON MAN.
M. E. SLOAN.
EDWARD A. COLBY.
LEBBEUS B. WARD.
E. V. BROWN.
JOHN PEDDIE,
By JACOB HAYS.
S. L. WARNER,
By HUGH R. GARDEN, *Attorney.*
NORRIS PETERS,
By HUGH R. GARDEN, *Attorney.*

Under resolution of trustees of pool stock passed at meeting held October 9, 1888.

EDWIN S. THAYER, *Chairman,* } *Trustees of Pooled*
HUGH R. GARDEN, *Secretary,* } *Stock.*
MRS. GEO. WESTINGHOUSE, JR.,
By GEORGE WESTINGHOUSE, JR.
JAMES T. CLOSSON,
By JACOB HAYS.
JAMES ADAIR,
By JOHN ROONEY.

Total assenting, 21,990,521 shares.

86 HERRICK'S EXHIBIT C.

(*Westinghouse Lease.*)

Memorandum of agreement entered into this 10th day of October, in the year one thousand eight hundred and eighty-eight, by and between The Consolidated Electric Light Company of the State of New York, party of the first part, and The Westinghouse Electric Company of Pennsylvania, party of the second part, witnesseth:

That in consideration of the rents hereinafter reserved and of the covenants hereinafter contained, and on the part of the said The Westinghouse Electric Company and its successors and assigns to be observed and performed, the said The Consolidated Electric Light Company hereby grants, leases and demises unto the said The Westinghouse Electric Company and its successors:

First. All premises and improvements thereon situate in the city of New York and designated by street numbers 510 to 532 inclusive, Twenty-third street in said city, and more particularly described in a certain deed of conveyance of James D. Squires to the party of the first part bearing date December 6th, 1887, and recorded in the office of the register of the city and county of New York in Liber 2114, page 1, of Conveyances, December 28th, 1887; and also all right, title, interest and estate of the party of the first part in and to the premises and improvements thereon situate in said city and

designated by street number 534 Twenty-third street, and more particularly described in a certain lease of William T. Moore to Samuel S. Constant, Charles R. Christy, Henry J. Chapin, executors, and Samuel S. Constant, bearing date March 23d, 1880,
87 and recorded in the office of the register of the city and county of New York in Liber 1535 of Conveyances, page 195, on the 3d day of April, 1880; and the use and enjoyment of all plant, machinery, tools, utensils, implements, fixtures and materials contained in or upon said premises or elsewhere, as more particularly described in Schedule "A" to be hereunto annexed and made a part of this agreement, for the full period of the present legal existence of the said The Consolidated Electric Light Company or any extension thereof.

Second. All rights and privileges now possessed by it under letters patent of the United States, to the full end and term for which said letters patent are granted or issued or of any reissues or extensions thereof, which said rights and privileges are more particularly described in Schedule "B" to be hereunto annexed, and made a part of this agreement.

Third. All the other assets and the business of the party of the first part, including all bills, accounts or claims receivable whatsoever, and which said assets, bills, accounts and claims are more particularly described in Schedule "C" to be hereunto annexed and made a part of this agreement.

Fourth. All the property, rights, assets and business of the Sawyer-Man Electric Company of the State of New York, which property, rights and assets are more particularly described in Schedule "D" to be hereunto annexed and made part of this agreement. The entire capital stock of the said The Sawyer-Man Electric Company to be transferred to the party of the second part or its nominees, in trust, for the purposes of this agreement.

The said party of the second part shall yield and pay to the party of the first part:

First. The sum of $150,000 each and every year during the continuance of this agreement, payable in equal quarterly payments beginning December 20th, 1888, for the quarter ending December 31st, 1888.

Second. It will further pay in equal quarterly payments
88 a sum equal to one cent for each and every lamp sold by said party of the second part or its assigns, or with its consent, beginning January 20th, 1889, for the quarter ending December 31st, 1888.

Third. That said party of the second part will assume and pay principal and interest of the mortgage bonds now a lien on the property of the party of the first part in Twenty-third street, city of New York.

Fourth. The said party of the second part will assume and pay all the current liabilities of the party of the first part, which liabilities are more fully set forth in Schedule "E" to be hereunto annexed and made a part of this agreement.

Fifth. The said party of the second part will pay all taxes levied

upon the franchises, property and business of the said party of the first part, except such as may be levied on or on account of the payment of dividends by the party of the first part.

Sixth. The said party of the second part will subscribe for the unissued stock of the party of the first part, amounting to the value at par of $125,000, paying therefor $8,000 each and every quarter year beginning January 1st, 1889, until the said sum of $125,000 is fully paid; said stock to be issued by the party of the first part and delivered to the party of the second part as such payments are made.

It is covenanted and agreed that the quarterly payments of $80,000 per quarter for the stock aforesaid, together with $6,600 of the sum hereinbefore otherwise provided to be paid by the party of the second part to the party of the first part, making in all the sum of $14,600 per quarter, shall be set aside by the party of the first part, and either safely invested to form a sinking fund for the discharge of the bonded obligations of the party of the first part, or used to purchase such bonds, except such as are hereinbefore provided to be paid by the party of the second part.

It is further covenanted and agreed that the party of the second part shall maintain the real estate of the party of the first
89 part, and the personal estate described in Schedule "A," in its present condition of repair and usefulness at all times without expense to the party of the first part, and that the party of the second part shall have the right to alter, repair or change any of the articles enumerated in said Schedule "A," and, at the termination of this agreement, shall deliver to the party of the first part the said articles or their equivalent in other articles of equal value, or pay to the said party of the first part the value thereof.

It is further covenanted and agreed that the party of the second part shall keep the property of the party of the first part covered by insurance to the full value thereof, and in the event of the loss thereof by fire, shall apply the insurance money to the replacement of the property so insured.

It is further covenanted and agreed that the party of the second part shall at its own cost and expense protect the patents and patent rights described in Schedule "B," by instituting, conducting and defending all suits which have been, and may be brought, or which may be necessary for the protection of the rights of the parties hereto under the said patents.

It is further covenanted and agreed by the party of the second part that it will at all times, and to the best of its ability, conduct the business transferred to it by this agreement so as to secure to the party of the first part the fullest returns attainable from the same, and as fully as the party of the first part is required to do or cause to be done under its charter.

It is further covenanted and agreed that the party of the second part and its assigns shall keep full and complete books of account of all transactions affected by this agreement, which books and accounts shall be at all reasonable times open to the inspection of the party of the first part.

It is further covenanted and agreed that the party of the first part shall at all times do all things that may be necessary to give to the party of the second part the full benefit of all rights and privileges under this lease.

90 It is further covenanted and agreed that in the event of failure by the party of the second part to make any of the payments herein provided to be made within a period of ninety days after the same shall become due, or its refusal to keep and perform any of the other covenants of this agreement on its part undertaken, then this agreement shall at the option of the party of the first part cease, determine and become wholly void, and all the real and personal estate herein described shall thereupon revert to the party of the first part.

It is further covenanted and agreed that at the termination of this agreement all additions to the real estate of the party of the first part, by way of permanent improvements, shall be valued according to law, and paid for by the party of the first part, and all the real and personal estate herein described shall thereupon revert to the party of the first part.

It is hereby covenanted and agreed by the party of the first part that, of the money received from the party of the second part under this agreement, it shall pay to its stockholders, beginning April 1, 1889, quarterly dividends of not less than one per cent. on all of its outstanding capital stock, until such time as the indebtedness of the company is paid, and thereafter such increase shall be made in the quarterly dividends as will absorb all of the earnings after deducting the reasonable expenses of the company.

This agreement shall go into effect as of October 1st, 1888.

In testimony whereof, the Consolidated Electric Light Company, by Hugh R. Garden, its president, has, this tenth day of October, 1888, executed this instrument in duplicate, and caused its seal duly attested by Henry C. Davis, its secretary, to be hereunto attached, and the Westinghouse Electric Company, by George Westinghouse, Jr., its president, has, this tenth day of October, 1888, executed this instrument in duplicate, and caused its seal, duly attested by A. T. Rowand, its secretary, to be hereunto attached; said officers

91 of said corporations being thereunto authorized by resolutions of their respective boards of directors.

THE CONSOLIDATED ELECTRIC LIGHT COMPANY,

[SEAL.] By HUGH R. GARDEN, *President.*

Attest: HENRY C. DAVIS, *Secretary.*

THE WESTINGHOUSE ELECTRIC CO.,

[SEAL.] By GEO. WESTINGHOUSE, JR., *President.*

Attest: A. T. ROWAND, *Secretary.*

HERRICK'S EXHIBIT D.

Oct. 12, 1892.] The Electrical Engineer. xviii*a*

Office of the Westinghouse Electric and M'f'g Co.

PITTSBURGH, PENN., *October 6th*, 1892.

To users of incandescent electric lamps:

In order that no one may be misled by the statements of the owners of the Edison patents with regard to the effect of the recent decision of the United States circuit court of appeals for the southern district of New York, sustaining the second claim of Mr. Edison's incandescent lamp patent (the other three claims having been held by the court not to be infringed), we beg to announce to
92 our customers, and to users of incandescent electric lamps generally, that we are prepared to receive orders for the delivery in quantities, after December 1st, of our new incandescent lamps, the manufacture of which has been established at our Pittsburgh factory.

These lamps not only do not infringe the Edison patent above referred to, nor any of the patents of other companies, but they are fully covered by patents of our own.

The new lamp differs radically from those now in use. It requires no platinum and is made in separable parts, so that the incandescent burner can be renewed and the bulb and other parts of the lamp used over and over. Furthermore, by means of an important discovery, the burner is rendered stable, its effieiency increased, its life prolonged, and its normal candle power maintained.

The manufacture of these lamps will be carried on almost entirely by machinery, and the first cost thereby considerably reduced, so that, with the advantages obtained from the reuse of the bulbs, a saving of from 30 to 50 per cent. to consumers in the cost of incandescent lamps for a given service will be effected.

These lamps are in appearance a decided improvement over those now in use, and when used with a new socket designed for the purpose, a further reduction *of* in the cost of lamp renewals will be effected, as no base attachment is required to make the connection with the socket.

We are prepared to make advantageous time contracts with the users of incandescent lamps, with important allowances for the return of the bulbs to our factory.

THE WESTINGHOUSE ELECTRIC AND
MANUFACTURING COMPANY,
By GEORGE WESTINGHOUSE, JR., *President.*

93 HERRICK'S EXHIBIT E.

Westinghouse Electric and Manufacturing Company, Pittsburgh, Pa.

To users of incandescent lighting apparatus:

Do not hamper your business by long-time contracts to purchase lamps and machinery exclusively of any one concern.

Owners of lighting apparatus have been solicited to make long-term contracts with the General Electric Company for machinery and incandescent lamps. To secure these contracts it is asserted that the decision in favor of the second of the four claims of Mr. Edison's patent will control the trade, and that unless such contracts are entered into, the business of the parties applied to may be hampered by their inability to secure Edison lamps. We have information to this effect from many of those who have been thus approached, and these parties universally condemn this endeavor to deprive them of the advantages of selecting the best apparatus on the market, and propose to retain the right to contest the scope and validity of what may prove to be an assortment of worthless patents now issued, or yet to be issued.

We manufacture and sell the best incandescent lighting apparatus ever produced, and we propose, by means of our new lamp, to greatly extend our business. Therefore those who bind themselves to buy exclusively from others may thereafter suffer a great disadvantage by being obliged to use expensive and old-fashioned lamps and inefficient generating apparatus.

94 Our lamps not only do not infringe the Edison patent above referred to, nor any of the patents of other companies, but they are fully covered by patents of our own.

The new lamp differs radically from those now in use. It requires no platinum, and is made in separable parts, so that the incandescent burner can be renewed and the bulb and other parts of the lamp used over and over. Furthermore, by means of an important discovery, the burner is rendered stable, its efficiency increased, its life prolonged, and its normal candle power maintained.

The manufacture of these lamps will be carried on almost exclusively by machinery, and the first cost considerably reduced, so that, with the advantages obtained from the re-use of the bulbs, a saving of from 30 to 50 per cent. to consumers in the cost of incandescent lamps for a given service will be effected.

These lamps are, in appearance, a decided improvement over those now in use, and when used with a new socket designed for the purpose, a further reduction in the cost of lamp renewals will be effected, as no base attachment is required to make the connection with the socket.

We propose to fix our prices for lamps, and allowances for bulbs, in November, and to make the net cost to the consumers from 30 to 50 per cent. below the price they have heretofore paid.

Hundreds of these lamps have been made during the past six months and thoroughly tested for life and efficiency, and we can say from these tests that our new lamp is superior to anything of which the public have heretofore had knowledge.

☞ We shall be prepared to supply these lamps in large quantities, beginning December 1st.

95 *Affidavit of Walter K. Griffin.*

Circuit Court of the United States, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

SOUTHERN DISTRICT OF NEW YORK, *City and County of New York,* } *ss:*

Walter K. Griffin, being duly sworn, deposes and says: I am the counsel for the Edison Electric Light Company in its suit against the United States Electric Lighting Company, No. 3445 in equity, in the United States circuit court for the southern district of New York.

Under order of the master, the defendant The United States Electric Lighting Company has presented an account of its entire business of making, purchasing and selling incandescent electric lamps, such as were held and decreed by the court to be infringement of the second claim of letters patent No. 223,898 to Thomas A. Edison.

This account asserts that the defendant made and purchased about 1,400,000 lamps and lost over $185,000 during the period of the accounting which extended up to July 31st, 1891. In addition to this loss defendant claims there is to be added the entire cost of acquiring and maintaining its various patent rights and patents.

96 The account further shows that, beginning in the year 1887, the United States Electric Lighting Company purchased a large number of incandescent electric lamps from The Sawyer-Man Electric Company, the defendant herein. Early in 1889 the United States Company wholly abandoned the manufacture of incandescent electric lamps, and, since that date, the account states that all lamps sold by the United States Company have been manufactured by the Sawyer-Man Electric Company, from which company the United States Company purchased them. The number of lamps so purchased is stated substantially at 180,000, and the account shows a loss to the United States Electric Lighting Company of substantially 2½ cents a lamp upon such lamps as were sold, and to this that company claims there is to be added, *pro rata*, all the entire general expenses and experimental expenses of the United States Company, which amount, in all, to over $257,000,

and, further, the proper *pro rata* of the cost and expense of the patent rights and patents of defendant.

The president of the United States Electric Lighting Company, George W. Hebard, has attended most of the sessions on accounting, and has repeatedly stated to me that his company has never claimed to have made any profit upon the branch of its business relating to incandescent lights, and has further stated that in his opinion, and, from his experience, it would be impossible for the Edison Electric Light Company to prove any damages whatsoever. Mr. Hebard has further stated that from his experience, dating from the beginning of electric-light business in this country, there had been no profit made by any one until very recently.

So far as outlined, the whole tendency of the accounting on the part of the defendant indicates that the United States Electric Lighting Company will claim that they have lost heavily by the manufacture of incandescent lamps, and that therefore complainant cannot recover profits, and that the complexity of the electric-lighting business is such that, in view of the decisions as to separation of
97 profits and damages, it will be impossible in the law for the Edison Electric Light Company to recover damages.

The evidence in the main record supplemented by the figures and facts of accounting show that the defendant The United States Electric Lighting Company claims that it was a prominent manufacturer and seller of incandescent electric lights, having a filamentary carbon; having a manufactory originally in the city of New York, and then at Newark in the State of New Jersey, thoroughly equipped with expensive and complete apparatus for the economical manufacture of such lamps, and therefore as well equipped as any other company to manufacture at as low a price as possible, and to conduct its business at a profit; but under the sworn statement of the defendant the business has instead resulted in the loss of over $185,000.

WALTER K. GRIFFIN.

Sworn to before me this 28th day of October, 1892.

JAMES H. FAY,
[SEAL.] *Notary Public, N. Y. City.*

98 *Opinion of Circuit Court.*

Circuit Court of the United States for the Southern District of New York.

THE EDISON ELECTRIC LIGHT COMPANY
vs.
THE UNITED STATES ELECTIC LIGHTING COMPANY.

WALLACE, *Circuit Judge:*

Two claims of letters patent No. 223,898, granted Thos. A. Edison, January 27th, 1880, for an improvement in electric lamp, are in controversy in this suit. These are claims 1 and 2. It is not as-

serted for plaintiff that the defendant infringes the other claims of the patent, consequently they will require no attention further than to see whether their terms may assist in defining the meaning of the claims in litigation.

The plaintiff contends that these claims are for fundamental inventions of great merit, and are entitled to a construction by which every incandescent lamp for electric lighting, consisting essentially of a filamentary carbon burner, hermetically sealed in a glass vacuum chamber, is within their terms. The defendant contends that unless the claims are limited to narrow inventions, not employed by the defendant, they are invalid for want of patentable novelty. The questions of the validity and scope of the patent have been adjudicated in the courts of England and Germany with a diversity of opinion by the judges who have considered them. The specification is a perplexing one. The difficulty lies in its shadowy demarkation of the line between the essential and non-essential features
99 of the invention described. It catalogues a number of discoveries which Mr. Edison has made; it sets forth some of the essential features of the lamp, and then it leaves to be found by inference from generalities what the elements are of the combinations included in the extremely elastic terms of the two important claims. Nevertheless, when a sufficient knowledge of the prior state of the art to which it relates has been acquired, the new departures from old devices which it describes, and which, presumably, the inventor proposed to incorporate into the claims of his patent, are reasonably apparent. The specification states that the object of the invention is "to produce electric lamps giving light by incandescence, which lamps shall have high resistance so as to allow of the practical subdivision of the electric light." The subdivision of the electric light is the concrete term for the division of the electric current into numerous small units and their conversion into luminous centres. By practical subdivision is meant a distribution and division of the current and its conversion into lights comparable with those of ordinary gas jets, on a scale and under conditions of convenience and economy adequate to a system of illumination for domestic purposes, in villages and cities, analogous to that of gas. Prior to 1879 there was no method known by which this could be done practically. The problem involved the perfection of devices for the proper distribution and regulation of the current as well as those for translating it into light. No reference to the pre-existing devices for generating electricity, conducting it to the translating devices, or regulating its pressure and quantity, is necessary except to state that the principles governing the relation of the resistance of translating devices to the character of the circuit in which they are arranged, whether in series or in multiple arc, were well known to electricians and had been applied in various forms of electrical apparatus. There were two well-known devices for converting the current into light—the arc lamp and the incandescent lamp.
100 In the former the current is forced to leap an air gap separating two conductors, usually of carbon, and in overcoming the resistance of the air space heats the adjacent surfaces of the con-

ductors and produces a light of great intensity. In the latter light is produced by the incandescence of an electrical conductor, a conducting strip or burner, placed in a continuous circuit through which the current passes and which develops heat by its resistance to the flow. The arc lamp was suitable for use in streets, open spaces and large halls, but its light was too concentrated and powerful for the illumination of dwellings or rooms of small dimensions. It was the generally accepted opinion of electricians that the hope of progress in the subdivision of the electric light was to be found in modifying the features of the arc lamp. The reasons for this conclusion need not be mentioned; it suffices to say that Mr. Lane-Fox in England, and Mr. Edison in this country, seem to have been the only notable dissidents, and each of them had expressed the conclusion that subdivision might be accomplished by the incandescent lamp when provided with a conductor of high resistance and small radiating surface arranged in a system of multiple arc. Lane-Fox had set forth the advantages of such a lamp in three patents granted to him in England, two in October, 1878, and one in March, 1879, and in a letter to the "London Times" published in December, 1878; and Mr. Edison had done so in a patent granted to him in France, May 28th, 1879, for improvements in electric lighting.

By arrangement in multiple arc no greater electro-motive force is required for a large number of translating devices than for a single one, and the amount of current can be graduated to the number employed; consequently, a lamp with a conductor of high resistance can be utilized as efficiently as one with a conductor of low resistance. Higher resistance in the conductor permits the use of a weaker current, and consequently of smaller and less expensive main conductors. With a small surface of conductor less
101 energy is required to produce a candle power, and the small incandescent mass will radiate a moderate light, like the domestic lamp. Electricians knew how to make conductors of high resistance, and how to make them with a small radiating surface. They knew that with material of the same specific resistance the total resistance of the conductor could be varied by varying its length or cross-section, high resistance being imparted by length and small section. They knew what materials were preferable, and what processes of treatment, to make conductors of high or low resistance. If they had only known how to construct a lamp in which the conductor would have adequate mechanical strength and durability for practical commercial use, while having the small radiating surface and high resistance desirable, there would have been nothing wanting, and electric lighting by incandescence would soon have been an accomplished fact. Although Lane-Fox and Edison had contributed to the state of the art the recognition of the principle that the conductor must have high resistance and small radiating surface, and each of them had embodied the principle in lamps for which they had severally obtained patents, neither of them had invented a lamp which satisfactorily met all the conditions of success, because a burner of the necessary materials, form

and complementary adjuncts was yet to be devised. As to materials, experiments had been tried with platinum, iridium and alloys of these metals, and with carbon of various kinds. It was known that platinum, being a poor conductor, could be readily brought to incandescence by the electric current, but to do so it was necessary to raise it to a temperature very near the fusing point, and a minute increase would melt it. On the other hand, carbon was known to possess at an equal temperature much greater power of radiation than platinum, but the difficulty was that it would combine with oxygen at high temperature and rapidly disintegrate. It could only be used, therefore, in a vacuum from which the oxygen
102 had been excluded, and a perfect vacuum was practically unattainable. From the earliest lamp (disregarding the Geissler tube, because it has no burner in the true sense), patented in England by King in 1845, to the latest examples, like those of Lane-Fox or Edison's platinum lamp, patented in 1878–'9, the history of the art shows a variety of experiments to perfect a lamp in which a carbon burner, or a platinum burner, would have sufficiently long life for practical requirements. The result of these experiments may be succinctly shown by quoting two well-known electricians. Mr. Schwendler, in an article published in 1879, in the "Telegraphic Journal," said: "Unless we shall be fortunate enough to discover a conductor of electricity with a much higher melting point than platinum, and the specific weight and the specific heat of which conductor is also much lower than for platinum, and which at the same time does not combine at high temperatures with oxygen, we can scarcely expect that the principle of incandescence will be made use of for practical illumination." Mr. Sawyer, in a patent to Sawyer and Man, granted in June, 1878, said: "At the present day it is not new to produce a light by causing the electric current to heat a carbon conductor to incandescence in a vacuum, or in nitrogen, or in other gas; but no lamp has yet been devised which would be practically operative, and for these reasons: First, the methods which have been adopted for charging the lamp with the artificial atmosphere, such as a displacement of mercury, water or air by the gas, or the combustion of phosphorus in the lamp, are imperfect. A perfect vacuum is unattainable. Some oxygen, or other element or compound, remains in the lamp, and slow consumption or disintegration takes place, for the remaining gas or vapor other than hydrogen or nitrogen attacks the carbon, which in turn is decomposed, with a result of depositing the carbon upon the globe and setting free the oxygen to attack fresh carbon. Second, it has been found practically impossible under the varying degrees of heat and pressure to maintain perfect joints, and
103 the result is that expansion of the artificial atmosphere by the heat from the luminous conductor expels a portion of the same, and the contraction of the atmosphere upon cooling causes a portion of the external air to penetrate the globe, thus supplying oxygen, which at the next lighting feeds upon the carbon. Third, the unequal expansion of the carbon and its holders has resulted in

fractures of the former, so that, however perfect the atmosphere in the globe, the lamp has never been permanent."

The most advanced type of carbon-burner lamps in 1875 were the lamps of Lodyguine or of Konn, and until the spring of 1879, lamps like those of the Sawyer & Man patent or the patent of Mr. Farmer. It was thought to be the merit of Lodyguine's lamp that it obviated the difficulty of the short life of the burner by using two burners, rods of diminished section at the luminous focus, in a glass receiver, hermetically sealed and filled with nitrogen, electrically arranged so that the current could be passed to the second carbon when the first had been consumed. Mr. Konn provided his lamp with five carbon burners in the form of rods or pencils and devices for bringing them successively into circuit. In the lamp of Sawyer & Mann the carbon burner was a rod or pencil maintained in a globe charged with nitrogen gas, and the globe and its stopper (both of glass) were held together by a clamping device. In the lamp of the patent granted to Mr. Farmer in March, 1879, the burner was a carbon rod or pencil enclosed in a globe filled with nitrogen or other analogous gas, and the globe was closed by a rubber stopper. In none of the lamps, except the one described in Mr. Edison's prior French and English patents of 1879, had any attempt been made to make the vacuum chamber wholly of glass with the parts sealed together by fusion, or to seal the conducting wires leading to the burner through the glass by fusion of the glass. The impracticability of maintaining a carbon burner under such conditions that it would be sufficiently durable had apparently so
104 impressed those who were studying lighting by incandescence, that we find that as late as in the early part of 1879 both Lane-Fox and Edison were trying to perfect a burner of other material. Edison's burner, in his French patent of May 28th, 1879, and his English patent of June 17th, 1879, was of platinum wire coiled upon a bobbin composed of an infusible oxide; and Lane-Fox's burner, in his patent of May 14th, 1879, was of platinum-iridium alloy, or of spiral strips of metal surrounding a tube of glass, fire clay, steatite or lime, with the surface of the metal strips covered with asbestos or some vitreous material.

This cursory view of the prior state of the art is sufficient for an intelligent reading of the specification. The specification describes the general nature of the invention as follows:

"The invention consists in a light-giving body of carbon wire or sheets coiled or arranged in such a manner as to offer great resistance to the passage of the electric current, and at the same time present but a slight surface from which radiation can take place."

"The invention further consists in placing such burner of great resistance in a nearly perfect vacuum to prevent oxidation and injury to the conductor by the atmosphere. The current is conducted into the vacuum bulb through platina wires sealed into the glass."

"The invention further consists in the method of manufacturing carbon conductors of high resistance, so as to be suitable for giving light by incandescence, and in the manner of securing perfect con-

tact between the metallic conductors or leading wires and the carbon conductor."

The specification then recites that previously light by incandescence had been obtained from rods of carbon of one to four ohms of resistance, placed in closed vessels in which the atmospheric air had been replaced by gases that did not combine chemically with the carbon; that the vessels holding the burner had been com-
105 posed of glass cemented to a metal base; that the connections between the leading wires and the carbon has been obtained by clamping the carbon with the metal; that the leading wires had always been large, so that their resistance should be many times less than the burner, and generally the attempts of previous persons had been to reduce the resistance of a carbon rod. It then points out the disadvantages of such a lamp, stating that it could not be worked in great numbers in multiple arc without the employment of main conductors of enormous dimension; that, owing to the low resistance the leading wires have to be of large dimensions and good conductors, and a glass globe cannot be kept tight at the place where the wires pass in and are cemented, and consequently the carbon is consumed because there must be almost a perfect vacuum to render it stable, especially when it is small in mass and high in electrical resistance; and that the use of gas in the receiver at the atmospheric pressure serves to destroy the carbon by attrition.

The specification then states in substance that the patentee proposes a new departure; and that he has discovered that even a cotton thread properly carbonized and placed in a sealed glass bulb exhausted to one-millionth of an atmosphere offers from one hundred to five hundred ohms resistance to the passage of the current, and that it is absolutely stable at very high temperature; that if the thread be coiled as a spiral and carbonized, or if any fibrous vegetable substance which will leave a carbon residue after heating in a closed chamber be so coiled, as much as two thousand ohms resistance may be obtained without presenting a radiating surface greater than three-sixteenths of an inch; that if such fibrous material be rubbed with a plastic composed of lamp-black and tar its resistance may be made high or low, according to the amount of lamp-black placed upon it; that carbon filaments may be made by a combination of tar and lamp-black, the latter being previously ignited in a closed crucible for several hours, and afterwards
106 moistened and kneaded until it assumes the consistency of thick putty; that small pieces of this material may be rolled out in the form of wire as small as seven one-thousandths of an inch in diameter and over a foot in length, and the same may be coated with a non-conducting, non-carbonizing substance and wound on a bobbin, or as a spiral, and the tar carbonized in a closed chamber by subjecting it to high heat, the spiral after carbonization retaining its form; that he has carbonized and used cotton and linen thread, wood splints, papers, coiled in various ways, also lamp-black, plumbago, and carbon in various forms, mixed with tar and kneaded so that the same may be rolled out into wires of various lengths

and diameter; that each wire should be uniform in size throughout; that all these forms are fragile and cannot be clamped to the leading wires with sufficient force to secure good contact and prevent heating; that if platinum wires are used and the plastic lamp-black and tar material be molded around it in the act of carbonization, there is an intimate union by combination and by pressure between the carbon and platinum and nearly perfect contact is obtained without the necessity of clamps; that the burner and the leading wires should be connected to the carbon ready to be placed in the vacuum bulb, and when fibrous material is used the plastic lamp-black and tar should be used to secure it to the platina before carbonizing.

The specification proceeds as follows:

"By using the carbon wire of such high resistance I am enabled to use fine platinum wires for leading wires, as they will have a small resistance compared to the burner, and hence will not heat and crack the sealed vacuum bulb. Platina can only be used as its expansion is nearly the same as that of glass."

"By using a considerable length of carbon wire and coiling it the exterior, which is only a small portion of its entire surface, will form the principal radiating surface; hence I am able to raise the specific heat of the whole of the carbon and thus prevent the rapid reception and disappearance of the light, which on a plain
107 wire is prejudicial, as it shows the least unsteadiness of the current by the flickering of the light, but if the current is steady the defect does not show."

The specification then gives directions for carbonizing the carbon thread in a manner to prevent its distortion, for blowing a glass bulb over it after it is formed, for exhausting the glass bulb, and for hermetically sealing the bulb when a high vacuum has been reached.

The claims are as follows:

"1. An electric lamp for giving light by incandescence, consisting of a filament of carbon of high resistance, made as described, and secured to metallic wires, as set forth."

"2. The combination of carbon filaments with a receiver made entirely of glass and conductors passing through the glass, and from which receiver the air is exhausted, for the purposes set forth."

"3. A carbon filament or strip coiled and connected to electric conductors so that only a portion of the surface of such carbon conductors shall be exposed for radiating light, as set forth."

"4. The method herein described of securing the platina contact wires to the carbon filament, and carbonizing of the whole in a closed chamber, substantially as set forth."

The specification is addressed to those who were skilled in the art to which it relates; who appreciated the advantages of arranging incandescent lamps in a system of multiple arc, and of providing the lamp with a burner of high resistance and small radiating surface; who knew how high resistance, both specific and total, is imparted to a conductor; who knew that the rods, pencils, or other

forms of carbon burners previously used, had not been designed to embody the principle of high resistance; who knew how de-
108 sirable it was to maintain the burner in a perfect vacuum, or in gases that would exclude the oxygen; who knew what had been attempted and had proved impracticable in that behalf; who knew that such materials as are mentioned in the specification (even the tar-putty compound seems to have been used in Gauduin's process) would compose a carbon of high resistance when subjected to a proper process of carbonization; and who knew how to practice proper processes for the carbonization of such materials.

Read by those having this knowledge the radically new discovery disclosed by the specification is that a carbon filament as attenuated before carbonization as a linen or cotton thread, or a wire seven one-thousandths of an inch in diameter, and still more attenuated after carbonization, can be made which will have extremely high resistance and be absolutely stable when maintained in a practically perfect vacuum. It informs them of everything necessary to utilize this discovery and incorporate it into a practical lamp. It describes, with the assistance of the recital in the second claim, as the vacuum in which the burner is to be maintained, a bulb made wholly of glass, exhausted of air, sealed at all points by the fusion of the glass, and in which platinum leading wires are sealed by the fusion of the glass. It describes the materials of which the burner is to be made and instructs them that the materials are to be shaped into their ultimate form before carbonization. It describes the use of platinum for the leading wires, and a method of securing the leading wires and filaments, intended to dispense with clamping, which consists in molding tar putty about the joints, and carbonizing the whole in a closed chamber. Besides stating that the resistance of the burner will be greatly increased and the radiating surface still be kept within moderate limits by coiling it in the form of a spiral, the specification states that by increasing the length of the filament coiled, the exterior only will be the principal radiating surface, and greater steadiness of illumination will be promoted.

The first claim must be read with several limitations. The
109 filament is to be made of carbon of high resistance; that is, as the experts agree, of high specific resistance. The filament is to be made as described, that is, the materials are to be of some of the kinds described, and are to be shaped in filamentary form and then carbonized. The filament is to be secured to metallic wires according to the method of the patent; because the claim implies the elements of a globe and metallic conductor arranged in circuit with the burner, otherwise the combination would not be operative, and it would have been needless to specify the securing of the metallic wires to the filament unless it was intended to import into the claim the specific method of doing so emphasized in the specification.

The defendant does not infringe this claim, if for no other reason, because the leading wires in its lamps are not secured to the filament according to the method of the patent; that is, by cement carbonized *in situ*, but by clamps such as the specification condemns.

The second claim is broad enough in its phraseology to secure the real invention described in the specification, and can be read consistently with its language so as to import into it every essential limitation.

It was a remarkable discovery that an attenuated thread of carbon would possess all the long-sought qualities of a practical burner when maintained in a perfect vacuum. The extreme fragility of such a structure was calculated to discourage experimentation with it, and it does not detract in the least from the originality of the conception that previous patents had suggested that thin plates, or pencils, or small bridges could be used. The futility of hoping to maintain a burner *in vacuo* with any permanency had discouraged prior inventors, and Mr. Edison is entitled to the credit of obviating the mechanical difficulties which disheartened them, but what he did in this respect was a matter of only secondary merit and was no longer new in the art, because he had already disclosed it in his French and English patents. What he actually accomplished was to unite the characteristics of high resistance, small radiating surface, and durability in a carbon conductor by making it in a form of extreme tenuity, out of any such materials as are mentioned in the specification, carbonizing it, and arranging it as he had previously arranged his platinum burner in an exhausted bulb made wholly of glass and sealed at all points, including those where the leading wires entered, by the fusion of the glass. He was the first to make a carbon of materials and by a process which was especially designed to impart high specific resistance to it; the first to make a carbon in the special form for the special purpose of imparting to it high total resistance; and the first to combine such a burner with the necessary adjuncts of lamp construction to prevent its disintegration and give it sufficiently long life. By doing these things he made a lamp which was practically operative and successful, the embryo of the best lamps now in commercial use, and but for which the subdivision of the electric light by incandescence would still be nothing but the *ignis fatuus*, which it was proclaimed to be in 1879 by some of the learned experts who are now witnesses to belittle his achievement and show that it did not rise to the dignity of an invention.

The coiled form of the burner is only an alternative feature, and is not a constituent of the second claim. It is the subject of the third claim. Nor is the bent form or any form other than the filamentary. It may be that in the haste which has always seemed to characterize Mr. Edison's efforts to patent every improvement, real or imaginary, which he has made or hoped to make, he had not stopped to reflect when he framed his application for the patent that the filamentary burner would do its work just as well uncoiled as coiled provided the same length and cross-section were used. It is true that it is said in the general statement of the nature of the invention that the burner is so "coiled or arranged" as to offer high resistance and present a small radiating surface; but this description is satisfied by any arrangement, whether by coiling a considerable length

in a small globe or using the same length uncoiled
111 in a larger globe, by which sufficient total resistance is obtained from a filament of small diameter. It certainly would not involve invention to omit the coiling and elongate the globe; hence, it is manifest that the invention described is the same thing essentially whether the coiled form is used or not. The language is satisfied, if the burner is filamentary and so arranged as to offer great resistance and slight radiation, without importing into it anything which is not of the essence of the invention. No precise limitation upon the maximum diameter of the filament can be defined from the specification or is required as an element of the claim. The specification mentions by way of illustration the threads of linen or cotton which become more attenuated after carbonization, and the carbon wire which after carbonization would be from four to five one-thousandths of an inch in diameter; while the smallest rods of carbon previously known were about a millimeter in diameter, thus having a cross-section fifty times as great as the carbon wire. It is to be implied from the suggestions in the specification that it is to have sufficiently high total resistance for efficient use when the lamps are arranged in multiple arc, and to be used with leading wires of fine platinum. The claim is not limited to a carbon filament made of non-fibrous material. The conductors of the claim are the platinum wires mentioned in the specification. The receiver is the vacuum described in the specification. The peculiar method of securing the conductors to the filament, made a constituent of the first claim, is not imported into the second claim. A more exact interpretation of the meaning of the claim than has thus been indicated is not necessary in the present case, because each of the three lamps representing the kinds used by the defendant embodies the invention of the claim as thus interpreted.

It is of little import what Mr. Edison, or his patent solicitor, may have thought about the meaning of the claim during the pendency of the application for a subsequent patent, or that Mr. Edison may have supposed a resistance as high as one hundred ohms in
112 the burner would be required for use with the means of distribution which he expected to employ with his system of lighting. There are many adjudicated cases in which it appears that the inventor builded better than he knew; where a patent has been sustained for an invention the full significance of which was not appreciated by the inventor when it was made. In the case of the Bell telephone patent there was great room for doubt whether the speaking telephone had been thought of by Mr. Bell when he filed his application for a patent, but the court said: "It describes apparatus which was an articulating telephone, whether Bell knew it or not" (22 Blatch., 532).

The nearest approach in the prior art to the invention of the second claim is undoubtedly the lamp of Edison's French and English patents with a platinum burner. It seems almost preposterous to argue that the substitution of the carbon filament for the platinum burner of that lamp was an obvious thing to electricians. It would have been probably if there had been such a thing as a filamentary

carbon in the prior art. But the nearest approximations to it were the ribbon-shaped carbon burner of low resistance of Mr. Farmer (which was not a part of the prior art but an isolated example known only to a select few) and the low-resistance carbon-rod burners of the patent of Sawyer & Man.

Undoubtedly the improvements that have been made in the art, such for instance as the method of electrical carbonization of the filament, since Mr. Edison's invention, have been of great value, and the perfected commercial lamp of to-day is far superior to the one which could be made by applying to the description of the patent all the knowledge and skill then possessed by those to whom it was more particularly addressed. But as was said by Bowen, L. J., in the court of appeal in England, "the evidence shows that lamps made solely on the patent will and do succeed, although subsequent improvements have been engrafted on the original design." It is impossible to resist the conclusion that the invention of the
113 slender thread of carbon as a substitute for the burners previously employed opened the path to the practical subdivision of the electric light.

The questions which have seemed the most meritorious of those argued at the bar have now been considered. Others, to which no reference has been made, have not been overlooked, and may be dismissed without discussion and with the single remark that nothing which has been presented by the voluminous proofs and the exceedingly able and elaborate arguments of counsel seems to supply any valid reason for refusing to decree for the plaintiff.

The usual decree for an injunction and accounting is accordingly ordered.

UNITED STATES OF AMERICA, }
Southern District of New York, } *ss:*

I, John A. Shields, clerk of the circuit court of the United States in and for the second circuit and southern district of New York,

Do hereby certify that I have compared the preceding with the original opinion of Wallace, J., of July 14, 1891, in the cause in equity entitled The Edison Electric Light Company *vs.* The United States Electric Lighting Company, on file and of record in my office, and that the same is a true and correct transcript therefrom, and of the whole of said original.

In testimony whereof, I have hereunto set my hand and affixed the seal of said court, at the city of New York, in the dis-
[SEAL.] trict and circuit above named, this 18th day of September, in the year of our Lord one thousand eight hundred and ninety-one, and of our Independence the one hundred and sixteenth.

JOHN A. SHIELDS, *Clerk.*

114 *Opinion on Appeal.*

United States Circuit Court of Appeals, Second Circuit.

THE EDISON ELECTRIC LIGHT COMPANY, Respondent,
vs.
THE UNITED STATES ELECTRIC LIGHTING COMPANY, Appellant.

Before Lacombe and Shipman, Circuit Judges.

Kerr & Curtis, solicitors for appellant.

S. A. Duncan, L. E. Curtis, E. Wetmore and F. H. Betts, of counsel for appellant.

Eaton & Lewis, solicitors for respondent.

C. A. Seward, G. P. Lowrey, S. B. Eaton, A. H. Walker and R. N. Dyer, of counsel for respondent.

In the oral argument counsel spoke in the following order: Mr. Duncan, Mr. Dyer, Mr. Betts, Mr. Seward, Mr. Lowrey and Mr. Wetmore.

Appeal from a decree of the circuit court, southern district of New York, granting an injunction with accounting for profits and damages. The suit was originally brought on three patents:

No. 223,898, dated January 27, 1880;

No. 227,229, dated May 4, 1880, and

No. 265,777, dated October 10, 1882.

115 By stipulation the bill was amended by withdrawing the last two patents. The cause came on for hearing before Judge Wallace on pleadings and proofs, with the result above indicated, and defendant appealed. The facts are sufficiently indicated in the opinion.

LACOMBE, *C. J.:*

On January 27th, 1880, under an application filed November 4th, 1879, letters patent No. 223,898 were issued to Thomas A. Edison, and by subsequent assignments passed to the complainant. The four claims of the patent are as follows:

1. An electric lamp for giving light by incandescence, consisting of a filament of carbon of high resistance, made as described, and secured to metallic wires, as set forth.

2. The combination of carbon filaments with a receiver made entirely of glass and conductors passing through the glass, and from which receiver the air is exhausted, for the purposes set forth.

3. A carbon filament or strip coiled and connected to electric conductors so that only a portion of the surface of such carbon conductors shall be exposed for radiating light, as set forth.

4. The method herein described of securing the platina contact wires to the carbon filament, and carbonizing of the whole in a closed chamber, substantially as set forth.

In the lamp made by defendant the carbon conductor is not coiled as indicated in the third claim, nor is it secured as indicated

in the fourth, nor does complainant contend that either of these claims is infringed. The circuit court held that the first claim was by its phraseology limited to lamps, in which (among other
116 things) the leading-in wires are "secured to the filament according to the method of the patent, that is, by cement carbonized *in situ*," and that as defendant uses clamps for this purpose it does not infringe. This construction of the first claim has been acquiesced in by the complainant, which has not appealed from the decision. There remains for consideration only the second claim.

The defendant's burner is of carbon, so small in cross-section that, by the ordinary usage of common speech, it may be fairly called a "filament:" the receiver, which contains the burner, is made entirely of glass; the conductors, which connect with the burner, pass through the glass; and from the receiver the air is exhausted. Defendant contends, however, that the specifications of the patent and the prior state of the art require that this second claim be so limited in construction that defendant's apparatus will not fall within its terms, and that, unless so limited, such claim is directly anticipated, or untenable as not involving patentable novelty.

Lamps devised to give light by means of the electric current are broadly divided into two groups, the arc and the incandescent. In the former two conductors or electrodes are so arranged that, when in operation, they are slightly separated with their axes in the same vertical line. The current leaps across the intervening space, tearing off and partially vaporizing particles from the opposed ends of the electrodes, and developing heat and light in the ends of the electrodes and in the flying particles between them. In order to provide a current, which shall be as effective as possible at the place where it develops light, not only the conductors, which bring it from the source of supply, but also the electrodes themselves, forming part of the conducting circuit, are devised to present but small resistance to the passage of the current. The effective resist-
117 ance begins, when the break in the circuit is reached. In an incandescent lamp there is no break in the circuit, but there is introduced into it a piece of poorly conducting material, which is so arranged that its resistance to the passage of the current will develop heat, sufficient to bring it to a state of incandescence. The wires which conduct the current to the place, where it is thus developed by resistance, are so devised as to present but small resistance to its passage. The effective resistance begins where the piece of poorly conducting material (the burner or illuminant) is placed, and the lamp expires when the burner is consumed, breaks, or wears away. The longer the life of the burner the longer the life of the lamp, and the more available it becomes for practical electric lighting.

The selection of materials for the various parts of the circuit thus formed, their manipulation, arrangement and operation have for many years occupied the attention of experimenters, and the results of their labors made public from time to time, constitute the state of the art of incandescent electric lighting.

The patent sets forth that "the object of the invention is to produce electric lamps giving light by incandescence, which lamps shall have high resistance, so as to allow of the practical subdivision of the electric light." By the phrase "subdivision of the electric light" is meant such a subdivision of the electric current, that at several illuminating foci, supplied from the same source of electricity, there shall be developed lights of moderate intensity—comparable to those given out by ordinary gas jets—and the problem to be solved required a system and apparatus, which would admit of the development of these moderate lights in sufficient number, and at so low a cost, as to be commercially useful.

Prior to 1879 experimenters seemed to have reached the conclusion that success was to be attained, if at all, by modifications
118 of the arc lamp, but, up to that time, no lamp, arc or incandescent, had been given to the public, which, with the means then existing for generating and distributing the electric current, accomplished this result. Since the date of the patent in suit, electric lighting by lights of moderate intensity has become a commercial success. Subsequent improvements in the lamps and in other parts of the system have undoubtedly contributed materially to its development, but the record abundantly shows that, with lamps such as the patent describes, constructed with the skill then known to the art, and operated under the conditions admitted by the generating and conducting apparatus then existing, it became practical for one generator to operate a considerable number of lamps, located at reasonable distances from it, and which at the same time were economical, durable and cheap enough to be commercially useful, and so simple and reliable that they could be manipulated by the public. In view of the utter failure of the prior art to produce any such subdivision of the electric light, a lamp of this kind, which was capable of economical use in factories, large buildings, and in smaller buildings contiguous to each other—in other words available for isolated lighting—should be considered commercially successful, though further development were needed to enable it to compete with gas for domestic lighting on even approximately equal terms. What then was the contribution to this solution of the problem, which Edison gave to the world by the patent in suit?

Commercial and domestic exigencies required that the lamps should be so arranged that each derived its power independently from a common source, and not through another lamp, so that they could be individually lighted or extinguished at will, and the breaking down of a single lamp would not break the circuit. This is effected by what is called the "multiple-arc" arrangement,
119 the wires leading to and from each light being so connected with the main conductors as to form a separate circuit for each light. In this arrangement no greater electromotive force is required for a large number of translating devices than for a single one, the current being graduated to the number employed. The lower the resistance of each illuminating conductor, the greater the current it requires, and as their number is increased, their individual resistances remaining constant, the size of the main conductors

must be likewise increased—an increase which in the prior art, soon involved such an expense for main conductors as to preclude commercial success.

The amount of heat developed by the passage of an electric current is greater as the flow of the current is greater; it is also greater as the resistance of the conductor is greater, and all electric conductors vary in resistance directly as their lengths and inversely as their cross-sections. Conductors of different materials have also different specific resistances. The quantity of heat developed in a translating device is independent of—but the degree of heat (*i. e.* the temperature) is dependent on the extent of radiating surface. In the lamp shown in the patent these laws are availed of: the ratios of resistance of the burner to the resistance of the entire circuit and to its own radiating surface being so graduated, that a light of the required intensity is produced, by the expenditure of so small an amount of current at each illuminant focus, as to admit of main conductors sufficiently small, and therefore sufficiently low-priced, to warrant the introduction of the system into public use.

It is not necessary to enter into any elaborate discussion of the prior state of the art, so far as it bears upon the question of the patentable novelty of such embodiment of the principle of high resistance and small radiating surface. Irrespective of all patents or publications of others, the philosophy of that method of producing light is undoubtedly found stated clearly and sufficiently, and applied to the production of an incandescent platinum burner, in Edison's French patent No. 130,910 taken out May 28, 1879. Whether under section 4887 of the Revised Statutes that patent, embodying as it does his own invention, is or is not, so far as Edison is concerned, a part of the prior art, and to what extent, in view of the prior art that patent discloses patentable invention, need not be determined upon this appeal, inasmuch as we are satisfied that there was invention in the substitution of the carbon of the patent in suit for the platinum of the French patent, even though all knowledge as to what should be the ratio of resistance to radiating surface were pointed out, either in the French patent, or elsewhere in the art.

As stated above, conductors of different materials have different specific resistances. Without going into details it may be stated that among the metals platinum (including its alloys) is the only one which seems to have given promise of success for incandescent lamp burners. With a method of preparation, intended to remedy some of its defects, it is the material of the French patent, although the first claim of that patent is, generally, for a continuous metallic conductor. The specific resistance of platinum is sufficiently high to admit of its being raised to incandescence by the electric current. When so raised it is not consumed in the presence of oxygen, but is fusible at a temperature slightly higher than that at which it becomes incandescent. To produce light it has to be maintained so near the melting point, that a slight fluctuation of the current above the normal strength destroys it, and a large part of the French patent is devoted to the description of methods and a complicated

apparatus, called the "thermal regulator," intended to regulate the current so as to avoid any such raising of the temperature.

121 In his invention, as described in the French patent, Edison departed from the existing idea of burners of low resistance, declared the commercial and scientific necessity of burners of high resistance, although they must be slender and presumably fragile, and attempted to find a method of protecting them from the effects of heat and of the atmosphere. It is said that the theretofore known laws of electricity should have taught every one that an electrical incandescent lamp must have a burner of small cross-section and small radiating surface. The electrical laws had been known and had been recognized, but they did not tell how to protect the materials which would make efficient burners from the destructive effect of other forces than electricity to which they must be subjected, in other words, they did not tell how to construct a lamp. Edison in his French specification followed the principle of high resistance *of* to an extreme, made platinum burners with a resistance — 200 to 300 ohms, and described the method by which they were to be prevented from speedy deterioration, "by destroying or intercepting the atmospheric action." He freed them from occluded gases by subjecting them to a high degree of electrical heat in a vacuum and subsequently sealed them also in a vacuum. The platinum lamp however did not achieve success.

Inasmuch as carbon has a specific resistance from two to four hundred times that of platinum (hard, dense carbon having a lower resistance than porous carbon), is practically infusible, had been long before suggested as a translating device, and used as such in many of the lamps devised by the prior art, it might be supposed that, when one skilled in that art was seeking a substitute for the platinum wire,—something which would, by reason of high resistance and small radiating surface apply the philosophy disclosed in the French patent and yet admit of operation at higher temperature without melting,—he would have turned to carbon.

122 But the record in this case clearly establishes the converse of that proposition. Carbon, when exposed to the air at a temperature sufficient to produce incandescence undergoes combustion. To remedy this difficulty earlier inventors suggested enclosing the carbon burner in a glass globe, from which air and moisture were to be excluded. Their globes were separable to allow of replacement of interior parts. We do not find in the words "suitably sealed," used in the King patent (British 1845, No. 10919) to describe a modification of his lamp for use under water, sufficient warrant for the contention that its structure was to be so radically changed as to substitute a light and compact all-glass globe, with irremovable burner, for the cumbrous apparatus with its column of mercury which he describes in detail. Neither the enclosing chamber of Crookes nor the Geissler tubes,—though being all of glass with wires sealed in, they would not leak,—were used by the prior art to protect incandescent burners. By reason, in part, of that mode of construction—with separable chamber—the vacua which the earlier experimenters sought to secure could not be maintained.

Though subsequent improvements in exhaust pumps might give their apparatus a higher initial vacuum, it would rapidly disappear in the leaking globe. It was against the oxygen or other carbon-consuming gases that all prior inventors sought to protect the burner, and later inventors tried to accomplish the same result by filling the chamber with nitrogen or some other gas, which was inert, *i. e.*, did not combine with the carbon. The carbons themselves were also subjected to processes for making them harder and more tenacious, and series of carbons were arranged to be brought into operation successively without opening the chamber. But one and all of these devices failed to secure stability in the carbon. A deterioration, variously described as a "disintegration," a "wearing away," a "kind of evaporation"
123 was soon fatal to the life of the burner. The record abundantly establishes the proposition that, so far from turning to carbon for his burner, which was to have so high a ratio of resistance to radiating surface, one skilled in the art, would have been led by the teachings of that art to suppose that its instability would prove fatal to its use irrespective of the size of the burner. Especially is it true that the use of small carbon in the attenuated or filamentary form, which Edison had indicated in the platinum patent, would not have been thought of. Nor do we find in the suggestions of Lane-Fox, either in his patents (British Nos. 3988, 4043, 4626, of 1878, and 1122 of 1879) or his other publications, any such appreciation of the cause of the disintegration of carbon, or any such proposed method of preventing it, as would controvert the conclusion that the art was looking elsewhere than to carbon for the burner, which should have a future. Certainly Lane-Fox himself seems to have looked for success rather to his metallic alloys, and his compounds operated in nitrogen or other suitable gas, than to carbon in a perfect vacuum. The literature of the art fully sustains the statement of Mr. Schwendler quoted in "Telegraph Journal," in 1879 that "we can scarcely expect that the principle of incandescence will be made use of for practical illumination," unless there be discovered a conductor without the defects of platinum and "which does not combine at high temperatures with oxygen."

In June 1878 and January 1879 (U. S. patents 205,144 211,262) Sawyer & Man indicated one of the causes, which operated to produce this disintegration of the carbon, viz.: that "some oxygen or other element or compound remains in the lamp," the carbon "occluding sufficient air or oxygen to render its consumption a mere question of time," as "the least quantity of oxygen in a sealed
124 lamp is sufficient to combust an indefinite quantity of carbon." This they sought to remedy by heating the carbon pencils, immersed in a hydrocarbon liquid, to an extremely high temperature, thus producing a hard and dense carbon (and one whose specific resistance was lowered by that very process). They also, while the globe was on the pump and nitrogen flowing in and out of it, heated the "carbon to incandescence, thus driving out all the impurities and occluded gases, which are carried out of the lamp by the current of nitrogen." Believing that the deterioration

of the carbon burner was due to the presence of occluded oxygen, which escaped into the sealed chamber and promoted "combustion," they sought to secure stability by substituting for the oxygen they had forced out by heating on the pump, an atmosphere of nitrogen; that done they sealed their chamber, which seems to have been a separable one.

Edison had experimented with carbon before he devised the platinum lamp of his French patent. Subsequently to the date of that patent, apparently because that lamp did not seem to promise the success he hoped for he again turned to carbon. In the course of his investigations he made a discovery as to the causes of "disintegration," of which he availed himself to devise a lamp, in which carbon, even in the filamentary form required for a burner, whose ratio of resistance to radiating surface was such as to apply the philosophy pointed out in his French patent, could be maintained for a sufficient length of time to become a commercial success.

At the date of the application for the French patent he had apparently reached only the point that "pencils (not filaments)" of carbon can also be freed from air in this manner and be brought to such a temperature that the carbon becomes pasty, and if it is then allowed to cool it is very homogeneous and hard." The
125 knowledge that practical stability could be given to a carbon filament was not gained until October, 1879.

The patent in suit sets forth that theretofore—"light by incandescence has been obtained from rods of carbon of one to four ohms resistance, placed in closed vessels, in which the atmospheric air has been replaced by gases that do not combine chemically with the carbon. The vessel holding the burner has been composed of glass cemented to a metallic base" (or as the evidence in this case shows sometimes a glass base). * * * "The leading wires have always been large, so that their resistance shall be many times less than the burner, and, in general, the attempts of previous persons have been to reduce the resistance of the carbon rod. The disadvantages of following this practice are that a lamp having but one to four ohms resistance cannot be worked in great numbers in multiple arc without the employment of main conductors of enormous dimensions; that, owing to the low resistance of the lamp, the leading wires must be of large dimensions and good conductors, and a glass globe cannot be kept tight at the place where the wires pass in and are cemented; hence the carbon is consumed, because there must be almost a perfect vacuum to render the carbon stable, especially when such carbon is small in mass and high in electrical resistance.

The use of a gas in the receiver at the atmospheric pressure, although not attacking the carbon, serves to destroy it in time by "air-washing," or the attrition produced by the rapid passage of the air over the slightly coherent highly heated surface of the carbon. I have reversed this practice. I have discovered that even a cotton thread properly carbonized and placed in a sealed glass bulb exhausted to one-millionth of an atmosphere offers from one hundred to five hundred ohms resistance to the passage of the current, and

that it is absolutely stable at very high temperatures." * * *
126 (Here follow further statements as to other carbon substances and their manipulation.) * * * "By using the carbon wire of such high resistance I am enabled to use fine platinum wires for leading wires, as they will have a small resistance compared to the burner, and hence will not heat or crack the sealed vacuum bulb." * * * (The burner being placed on the glass holder,) "A glass bulb [is] blown over the whole, with a leading tube for exhaustion by a mercury pump. This tube when a high vacuum has been reached, is hermetically sealed." * * * "The invention consists of a light-giving body of carbon wire or sheets coiled or arranged in such a manner as to offer great resistance to the passage of the electric current, and at the same time present but a slight surface from which radiation can take place. The invention further consists in placing such burner of great resistance in a nearly perfect vacuum, to prevent oxidation and injury to the conductor by the atmosphere. The current is conducted into the vacuum bulb through platina wires sealed into the glass."

Edison's invention was practically made when he ascertained the theretofore unknown fact that carbon would stand high temperature, even when very attenuated, if operated in a high vacuum, without the phenomenon of disintegration. This fact he utilized by the means which he has described, a lamp having a filamentary carbon burner in a nearly perfect vacuum.

Although all glass globes with leading wires passing through the glass and sealed into it had been used before to preserve the conditions of the interior of a chamber from the effects of leakage at the joints, and although the prior art, including the French patent, indicated that subdivision of the electric light was to be obtained by the use of burners of high resistance and small radiating surface, and although pencils of carbon had been tried in imperfect vacua—and found wanting—it was invention, in view of the teachings of the art as to the disintegration of carbon under the action of
127 an electric current, to still select that substance as a suitable material from which to construct a burner, much more attenuated than had ever been used before—reduced in size to the filamentary form, in which economy of construction requires that it must be used in order to avail of the philosophy of high resistance and small radiating surface, and so to combine old elements that the disintegration due to "air-washing" should be practically eliminated, and the burner thus become commercially stable. It is true that carbon burners still break down, that the improvements neither of Edison nor of other inventors have made them absolutely stable, and in a sense it may be said that Edison only made them more stable than they were before—that it is a mere matter of degree. But the degree of difference between carbons that lasted one hour and carbons that lasted hundreds of hours seems to have been precisely the difference between failure and success, and the combination, which first achieved the result "long desired, sometimes sought, and never before attained" is a patentable invention.

It is also true that the combination and manipulation, which se-

cured a practically perfect vacuum by heating the burner, while the exhaust pump was at work, and subsequently sealing the globe without introducing a foreign gas, is set out by Edison in his French patent as a means of effecting such a change in the condition of platinum as would permit of its being raised to higher temperatures, without rupture, cracking, or diminution of weight by volatilization. But the evidence shows that the platinum lamp did not achieve success, and we think there was manifest invention in the substitution of carbon, freed from occluded gases, and placed in a nearly perfect vacuum. The change of material involved a reorganization of the lamp, dispensing with the thermal regulator, which was an essential part of the structure of the French patent: it developed
128 new properties in the lamp by reason of the enormous differences between the resistances and the melting points of the two materials: it utilized the discovery of that cause ("air-washing") of the instability of carbon, which seemed to preclude all hope of its future usefulness as an incandescent illuminant: finally and principally, by the substitution, there was presented the complete combination of elements, which for the first time in the art, produced a practical electric light. We are of the opinion that on principle and under the authorities such a substitution of material is invention.

Experts called for the defendant have testified that such change of material involved no invention, because the use, as a substitute for platinum of carbon of any size, operated in a vacuum, would be obvious to one skilled in the art. To this proposition we cannot assent. Sawyer & Man were skilled in the art, but, even after they had learned how to force out the occluded gases and withdraw them from the lamp chamber, they turned away from the vacuum, thus ready to their hands, feeling no doubt that they were following the teachings of the art in seeking stability by the use, not of a vacuum, but of a nitrogen atmosphere. Edison was skilled in the art, but, after he had the nearly perfect vacuum of the French patent, secured against leaking by the all-glass globe of Geissler and Crookes, it was only after months of patient and persistent experiment that he found, in the substitution for his platinum of a filament of carbon, the success he had long sought for, but not till then attained.

The second claim of the patent is broad enough in its phraseology to cover the invention above set forth—at least when the burner is a carbon filament. This last word is not specifically defined in the patent, though it therein appears for the first time in the art. It was a common English word with a meaning sufficiently
129 plain to indicate that the cross-section of any article, which it was used to qualify, must be so small as to be threadlike: and we think a sufficient indication of what that size is would be afforded by an examination of the ordinary threads in common use. An examination of the patent, however, indicates its dimensions with more exactness. It is to be fragile, so small in cross-section that, compared with older carbon rods, its use is a "reversal" of former practice. One of the substances suggested in the patent to be used as a burner is to be reduced to .007 of an inch in

diameter; ordinary cotton thread, also suggested in the patent, has varying diameters, the largest in common use being $\frac{1}{64}$ of an inch; the Patent Office model has a diameter of about $\frac{1}{66}$ of an inch. The evidence fails to satisfy us that the prior art furnished any burners less than twice this size. In contradistinction to these earlier burners, Edison calls his burner a filament. The term is apt and we do not think he was required to specify, by thousandths of an inch, its precise maximum and minimum. Surely no one could doubt that burners nearly approaching in size the examples of his filament shown in the patent would be filaments, nor that burners nearly approaching in size the earlier rod burners would be rods. The defendant's burners are smaller in cross-section than the cotton thread or the Patent Office model, and indisputably lie wholly on one side of the dividing line between rods and filaments, which, therefore, for the purposes of this suit need be no more closely defined. The carbons which defendant operates in a high vacuum, in all glass chambers with platinum wires sealed in, and which by such method are not exposed to air-washing, and are thus rendered practically stable, are filamentary in size, and therefore filaments within the meaning of the second claim, unless that word is to be qualified as defendant suggests. That it is to be so qualified by importing into it a "coiling" of the burner is unwarranted in view of the fact that the patent refers to both coiled and uncoiled
130 threads, and the third claim specifically covers the coiled form. The first claim is the comprehensive one, intended to include, and by its use of the words "made as described," in fact including the principal invention, as the draughtsman understood it,—to wit: the burner, which was to subdivide the electric light by its ratio of resistance to radiating surface, and also the subsidiary inventions (1) of coiling, when desired, either as effecting that ratio or as a protection against flickering, (2) of securing the burner to the wires, and (3) of providing a place for its operation,—to wit, the exhausted all-glass globe, which would insure practical stability. To cover each of these inventions a separate specific claim is made, and the second claim seems clearly intended to cover the combination of parts which secures the stability of the burner, irrespective of the fact whether it is coiled or uncoiled, is clamped to the leading wires or secured by the plastic combination of the fourth claim, is made out of one or other of the varieties of carbon mentioned in the patent, or even out of some other known variety not mentioned therein—irrespective also of the fact whether its resistance is higher or lower, except so far as its filamental character and its designed function would determine the measure of that resistence.

This conclusion seems plainly indicated by the peculiar phraseology of the claim. It is for: "the combination of carbon filaments with a receiver made entirely of glass &c. and from which the air is exhausted, for the purposes set forth;" that is for the purpose of preventing the disintegration of the burner resulting from air-washing. All the experts and all the counsel agree that the words "carbon filaments" should be read "a carbon filament," because the combination of the patent contemplated only the incan-

descence of a single filament in each lamp. This is quite correct, but the words thus altered found their place in the claim
131 through no mere clerical error. Inapt though they may be to describe the individual concrete combinations which were to be protected against infringement, they are illuminative of the effort of the draughtsman to secure his exhausted all-glass receivers in combination with carbon filaments of all kinds, and he used the plural, omitting the phrases of "high resistance" and "made as described," used in the first claim, in order to make sure that he should not, as to this second claim, be confined by construction to any one variety of filament. For this reason the further limitations which defendant seeks to read into this claim, viz: that the filament must be one of high specific resistance, or of, at least, 100 ohms resistance cannot be accepted.

The second claim may be thus paraphrased:

The combination of carbon filamentary or threadlike in size and properly carbonized, used as an illuminant in an incandescent electric lamp with a receiver made entirely of glass and conductors passing through the glass, and from which receivers the air is exhausted to such an extent that disintegration of the carbon due to the air-washing action of surrounding gases or to any other cause is so far reduced as to leave the carbon practically stable.

Defendant's lamps are plainly infringements of the second claim as thus construed.

Defendant further contends that the patent is invalid because it does not so describe the lamps as to enable a person skilled in the art at the date of the patent to make a practically useful structure. The evidence of the witness Howell seems to us a conclusive answer to this contention. He made, as he testifies, according to the directions of the patent and using only processes known to the art before its date, incandescent lamps such as the patent describes, which lasted 600 hours. Defendant criticises this evidence, because the witness subjected the filaments made by him to the action of
132 the electric current during the process of exhaustion. But the patent repeatedly directs that the vacuum shall be high and nearly perfect. Sawyer & Man had, prior to the date of the patent, shown that there were occluded in the carbon itself, and in the various internal parts of lamp chambers gases and impurities, which are set free by the passage of the current. Manifestly, if they were not removed before sealing, the nearly perfect vacuum would soon disappear. Edison's French patent also details a process for forcing them out of platinum and removing them while exhausting is going on. A person who was sufficiently skilled in the art to know of these earlier publications, and was carefully solicitous to conform to the directions of the patent, would naturally have resorted, as Howell did, to this method to secure a vacuum, free, so far as might be, from the intrusion of such occluded gases. It is contended, however, that this process of "electric heating on the pumps" in effect produces a carbonization of the filament, that it is now used as a part of the process of carbonization, and that, therefore, because the patent simply directs that the filament be "prop-

erly carbonized," because electrical heating is now used with the understood object of supplementing the work of the carbonizing furnace, because Edison has always thus heated his filaments, and because such additional carbonization is necessary to make a practical lamp under his patent—therefore he has either purposely suppressed an essential element of his process, or has failed to give the full, clear and exact description of it, which the statute calls for. To this proposition we cannot assent. It is immaterial that the philosophy of electric heating on the pumps is better understood to-day than it was in 1879, so long as the requirements of the patent would not be complied with by one skilled in the art, unless he did in fact so heat the filaments. Whether he heated to carbonize, or to
133 secure a nearly perfect vacuum, the result would be the same—an operative lamp produced by following the directions of the patent with the ordinary skill of the art, and that is all the patentee was required to show.

The other defenses interposed by defendant may be more briefly noticed.

The patent in suit was issued January 27, 1880. A patent for the same invention was issued in Canada November 17, 1879, No. 10654, the term of which expressed on its face was five years; but the Canadian statute gave to the owner of the patent the right to an extension at his option, on the payment of a required fee, for the further period of ten years. On May 4th, 1883, the owner paid the fee required, and on October 30th, 1883, obtained certificate of extension. In Bate Refrigerating Co. *vs.* Hammond, 129 U. S. 164 it was held that, so far as the term of a Canadian patent thus extended under the Canadian statute operated to curtail the term of a United States patent under section 4887 U. S. Revised Statutes, it should be regarded as a continuous term for the entire period. It appears, however, that on March 5, 1880, a patent for the same invention was granted in Sweden, the grantee of which subsequently failed to prove, as required by the law of that country, that the invention was "being constantly practiced within the kingdom." Thereupon, on March 5, 1883, the Swedish patent right was lost and forfeited. Defendant contends that in consequence, the Canadian patent expired on the same day, March 5, 1883, or, if it continued till the expiration of the first five years expressed on its face, viz.: November 17, 1884, it could not by the payment of fees, or the certificate of the Canadian commissioner of patents, be extended for the additional ten years. For that reason defendant contends that the case at bar is distinguishable from Bate Refrigerating Co. *vs.* Hammond, and that the patent in suit expired with the Canadian
134 patent, either on March 5, 1883, or on November 17, 1884, prior to the beginning of this action.

The Canadian statute provides as follows:

"An inventor shall not be entitled to a patent for his invention if a patent therefor in any other country shall have been in existence in such country more than twelve months prior to the application for such patent in Canada; and if during such twelve months any person shall have commenced to manufacture in Canada the article

for which such patent is afterwards obtained, such person shall continue to have the right to manufacture and sell such article notwithstanding such patent; and under any circumstances, when a foreign patent exists, the Canadian patent shall expire at the earliest date at which any foreign patent for the same invention expires."

The soundness of the defendant's contention depends on the meaning under Canadian law of the phrase "where a foreign patent exists" as used in this statute. If that phrase is confined to foreign patents which exist before the relevant Canadian patent is issued, the loss and forfeiture of the Swedish patent right in no way affected the Canadian patent to Edison. The meaning of this phrase has not been declared by the Canadian courts, but a careful examination of the evidence given by the Canadian lawyers who have testified as to its practical construction by the Canadian government, and have given their professional opinions as to its meaning in Canadian law, satisfies us that it is there used as covering only foreign patents which exist before the issue of the relevant Canadian patent. We are of opinion therefore, that neither directly (Pohl *vs.* Anchor Co. 134 U. S. 381), nor indirectly through the Canadian patent, is the patent in suit affected by what happened to the Swedish patent.

The failure to limit the patent in suit on its face to a shorter term than seventeen years, so as to expire at the same time with
135 the prior foreign patent having the shortest term, does not affect its validity. Bate Refrigerating Co. *vs.* Hammond, 129 U. S. 151. Nor do we think that validity is in any way affected by the attempted certificate of correction. The patent, as originally issued being in every respect a regularly executed document, and the statute providing for no subsequent alteration thereof by the Patent Office (except in cases of reissue which this is not), the action of the Commissioner in endorsing it with an attempted "correction" was without jurisdiction and wholly void. And in the absence of any provision of law contemplating the surrender of an original patent by the grantee or holder (except for reissue) we cannot find, in the request to have such unauthorized correction made, any reason for holding that the patent was, by that act, surrendered.

It is further urged by the defendant that the suit abated on December 31st, 1886, by reason of the dissolution of the complainant consequent upon its merger, at the date named, in the corporation "Edison Electric Light Company." Except for the statute of the State of New York permitting consolidation, the original companies could not have thus merged themselves into a new corporation. The State, which thus provided for the consolidation of the creatures of its own creation, undoubtedly had the power to regulate the manner of that consolidation and the extent to which the functions, inherent in their former life, should be thereby suspended or destroyed. Among those functions was the conducting of suits, actions and proceedings in courts of justice. The right to appear as a party litigant was one which the corporation or artificial person obtained by the act of the State which created it, and it certainly has never been contended that because that creation was under State law, such

artificial person could not be a party litigant in Federal courts.

When the State undertook to regulate the matter of consoli-
136 dation, and the extent to which it should terminate the life of the artificial persons it had created, by destroying their functions, it expressly provided (Laws of New York, chap. 367 of 1884 sec. 6,) that: "No suit, action or proceeding then pending before any court or tribunal, in which any corporation that may be so consolidated is a party, or in which any such stockholder is a party, shall be deemed to have abated or been discontinued by reason of any such consolidation: but the same may be prosecuted to final judgment in the same manner as if the said corporations had not entered into the said agreement of consolidation; or the said new corporation may be substituted &c."

The State by this act expressly avoided interfering with the continued exercise of the artificial person's functions as a litigant, in cases when such functions were already in use. Therefore, being properly a party litigant in this suit before consolidation, it would remain so afterwards, not because the State statute is operative to regulate the practice and procedure of Federal courts in equity suits, but because, so far as the litigant life of the artificial person—properly a party to the suit, when brought—is concerned, there has been no change, the only power which could destroy it having scrupulously refrained from doing so. As by the consolidation all the property and rights of the old company were transferred to and vested in the new (consolidation act *supra*, sec. 5), and the new company succeeded to all the obligations and liabilities of the old one, the fruits of any recovery belong to the new company, and the provisions of an adverse judgment can be enforced only against it. The survival for purposes of pending suits is, therefore, merely nominal, but that is no anomaly, provisions of law allowing personal representatives to continue suits in the name of the original party after his death are common.

Nor do we find any bar to the maintenance of this suit in
137 the provisions of sec. 4889 U. S. Rev. Stat. that "every patent or interest therein shall be assignable in law by an instrument in writing." Whether the bare legal title to the patent in suit passed with all beneficial interest in the patent by the consolidation to the new company, or whether some instrument in writing must still be executed to make such transfer complete (the life of the old company continuing sufficiently to consummate the devolution which the consolidation act provided for, see Edison Electric Light Co. *vs.* New Haven Electric Co. 35 Fed. Rep. 236) the new company would have the right to continue under the name of the old one the pending litigation to enforce rights, which are in fact its own, with the same force and effect as if it were itself complainant. We do not find in the various contracts introduced in evidence sufficient warrant for holding that the complainant was "without such interest in the subject of the controversy as to enable it to maintain the bill in its own name without joining other parties," nor do the facts make out such a case that injunction should be refused on any

theory of laches or equitable estoppel by reason of undue delay in bringing suit, or acquiescence in known infringements.

The decree of the circuit court is, therefore, affirmed with costs.

138 *Opinion of Justice Bradley.*

Circuit Court of the United States for the Western District of Pennsylvania.

THE CONSOLIDATED ELECTRIC LIGHT COMPANY, Complainant, *vs.* McKEESPORT LIGHT CO., Defendant. } No. 5, May Term, 1888.

On bill and final hearing.

Opinion of the Court.

BRADLEY, *Circuit Justice:*

This is a bill for the alleged infringement of a patent, filed December 8, 1887, and the patent alleged to be infringed is dated May 12, 1885, and is for improvements in electric lamps. It was granted upon the application of William E. Sawyer and Albon Man, of New York, to their assignees, the Electro-Dynamic Light Co., and by mense assignments was transferred to the complainant, whose title commenced in October, 1882, before the patent was issued. The application for the patent was filed January 9, 1880, and the issue was delayed by various proceedings in the Patent Office, including an interference with an application of Thomas A. Edison, which had been filed a month earlier, to wit, December 11, 1879. Various defenses were set up in the answer, such as anticipation by
139 prior inventors, vagueness of description, want of novelty and utility, undue change of specification after filing, surreptitious claim of an invention made by Edison, &c. It is conceded that the defense of the suit is conducted by Edison Electric Light Company, a corporation of New York, which sells the lamps complained of as infringements of the patent, and is interested as assignee in the patents for electric lights formerly owned by "the Edison Electric Light Company," and in the question of interference between Edison and the complainants.

In the specification of the patent sued on, called Sawyer and Man patent, the invention is described as relating to that class of electric lamps employing an incandescent conductor enclosed in a transparent hermetically sealed vessel or chamber, from which oxygen is excluded, and constituting an improvement upon the apparatus shown in a previous patent granted to the same parties (Sawyer and Man) June 18, 1878, and numbered 205,144.

It is further stated in the specification, that the invention relates more especially to the incandescent conductor, its substance, its form and its combination with the other elements composing the lamp, and that the improvement consists, first, of the combination

in a lamp chamber, composed wholly of glass, as described in the said former patent, of an incandescent conductor of carbon, made from a vegetable fibrous material, in contradistinction to a similar conductor made from mineral or gas carbon, and also in the form of such conductor, combined in lighting circuit within the exhausted chamber of the lamp.

The construction of the lamp is then described, reference being made to the drawings for illustration. The lamp, as described and shown in the drawings, is a glass cylinder with rounded top, cemented at the bottom to a glass disk or plate, ground to fit closely to the cylinder, and the whole bottom enclosed in a cup filled with wax or suitable cement, to prevent as far as possible the
140 access of atmospheric air. Two holes are made in the bottom of the lamp, for the passage of the wires which convey the electric current into and out of the lamp. The carbon conductor within the glass cylinder is connected by its extremities to these two wires, respectively, in a mode specified in another patent of Sawyer and Man, dated December 10, 1878, and numbered 210,809, so as to constitute a part of the circuit; and having a low conductivity, and presenting a certain amount of resistance to the current of electricity, it becomes incandescent and highly luminous. If the carbon in this condition were exposed to atmospheric air, that is, to oxygen, it would be consumed by combustion. Hence another part of the combination necessary to the result consists in filling the lamp with nitrogen gas, or other gas, which prevents combustion, to the exclusion of atmospheric air. The mode of doing this is pointed out in the patent, No. 205,144, before referred to.

It is further stated in the specifications, that in the practice of the invention, the applicants had made use of carbonized paper, and also wood carbon. Also, that they had used conductors of different shapes such as V-shaped, and with rectangular corners, but preferred the arch-shaped, as shown in the drawings. It is added that a description of the mode of making the alluminating carbon conductors described, "and making the subject-matter of this improvement," was necessary as they could be made by any one skilled in the art, by the ordinary well-known methods in practice.

The specification then states the proposed practical advantages of the arched form of the conductor, by its permitting the carbon to expand and contract, and casting less shadow; and the advantage of making the wall of the lamp wholly of glass, by its preventing oxidation, leakage, &c., and states particularly the advantages resulting from the manufacture of the carbon from vegetable, fibrous or textile material instead of mineral, or gas carbon. "Among them," it says, "may be mentioned the convenience afforded for cutting and making the conductor in the desired form and size, the
141 purity and equality of the carbon obtained, its susceptibility to tempering, both as to hardness and resistance, and its toughness and durability." "We have used," it is added, "such burners enclosed or hermetically sealed in transparent chambers, in a vacuum, in nitrogen gas and in hydrogen gas; but we have

obtained the best results in a vacuum, or an attenuated atmosphere of nitrogen gas, the great desideratum being to exclude oxygen or other gases capable of combining with carbon at high temperature, from the incandescing chamber, as is well understood."

The patent has four claims:

"1. An incandescing conductor for an electric lamp of carbonized fibrous or textile material, and of an arch, or horseshoe shape, substantially as hereinbefore set forth."

"2. The combination, substantially as herein set forth of an electric circuit and an incandescing conductor, of carbonized fibrous material, included in and forming part of said circuit, and a hermetically sealed chamber, in which the conductor is enclosed."

"3. The incandescing conductor for an electric lamp formed of carbonized paper, substantially as described."

"4. An incandescing electric lamp consisting of the following elements in combination: first, as illuminating chamber made wholly of glass hermetically sealed, and out of which all carbon consuming gas has been exhausted or driven; second, an electric circuit conductor passing through the glass wall of said chamber, and hermetically sealed therein as described; third, an illuminating conductor in said circuit, and forming part thereof, within said chamber, consisting of carbon made from fibrous or textile material, having the form of an arch or loop, substantially as described, for the purpose specified."

The great question in this suit is, whether the patent sued on is valid, so far as it involves a general claim for the use, in electric lamps, of incandescing carbon conductors, made of fibrous or
142 textile substances. If it is, the complainant must prevail. If it is not, the bill must be dismissed.

The claims of the patent (excluding the third claim which the defendants do not use, and which is not involved in the case) may be summarized as follows: (1) A conductor of carbon made of fibrous or textile material, and of an arched form: (2) A conductor of carbon made of fibrous material in a hermetically sealed chamber, without regard to form: (3) The combination of a conductor of carbon, made of fibrous or textile material in an arched form, and the glass chamber hermetically sealed, and deprived of carbon consuming gas. The claim of the combination last named may be dismissed from consideration as a separate claim, because a glass chamber, hermetically sealed, for holding the light, has always been used and must, necessarily, be used in all incandescing carbon electric lamps. It was used by King in 1845, by Greener and Staite in 1846, by Roberts in 1852, by Konn in 1872, by Kosloff in 1875, and by others. Unless the patent is valid for the conductor of carbon, made of fibrous or textile material in an arched form, it cannot be made valid by combining such conductor with a glass chamber hermetically sealed.

We are equally of opinion that the giving of an arched form to the conductor was not new, and could not give to the claim any validity which it would not have as a broad claim of the conductor itself, made of carbon produced from a fibrous material. The arched

or bent shape in incandescent conductors was applied in 1848 by Staite to an iridium conductor, in 1858 by Gardiner and Blossom to a platinum conductor, and in 1872 by Konn to a carbon conductor. In the last case the conductor was enclosed (as it had to be) in a glass lamp or case filled with nitrogen or other gas incapable of supporting combustion. The carbon, it is true, is presented in a V-shaped form, but in a similar patent applied for a few weeks afterwards, claiming the same apparatus for the production
143 of heat, the patentee very properly says, "It is evident that stems of other shapes may be used."

If the U or V shaped form had not been given to carbons made in fibrous material for incandescent light, before Sawyer and Man adopted that form, it was merely an application by them of an old device to a new and analogous use. But the carbons used by Konn included charcoal as well as other carbons. He mentions graphite as preferable; but he claims the use of carbon generally.

As before stated, therefore, the patent must be construed as making the broad claim to the use, in electric incandescing lamps, of all carbons made of fibrous or textile substances. Is the patent valid for such a broad claim? The defendants contend that it is not; first, because no such invention was set forth in the original application, but was introduced for the first time more than four years after it was filed, and after the same material had been used by Edison, and claimed by him in an application for a patent: secondly, because Edison and not Sawyer and Man, was really the original and first inventor of an incandescent conductor made of fibrous or textile material for an electric lamp: thirdly, because if Edison was not the first inventor the thing claimed as an invention was old, and neither of the parties was entitled to a patent for it.

The whole vegetable kingdom is composed of fibrous material and all carbon or charcoal made therefrom comes within the scope of the complainant's claim. Silk is fibrous or textile, and carbon made from silk thread is, therefore, within the claim. Mineral coal and the carbon produced in gas retorts are not included. Can it possibly be said when we look at the history of the art of electric lighting, that carbon made from fibrous or textile material, was never used for that purpose until Sawyer and Man used it in 1878? We think not. We do not propose to describe in detail the various English patents of prior date, which have been adduced in evidence.

The word charcoal as well as carbon is constantly used to
144 define the material from which the conductors were made; and that word, in the English language *prima facia* refers to carbon or coal made of wood. We cannot yield our assent to the ingenious theory of the complainant's counsel and some of their witnesses that the word has come to have an artificial or technical meaning in this particular art, signifying gas or mineral carbon. We think that carbon made from wood or other vegetable material is generally intended. In King's patent of 1845, he says, "The nature of the invention consists in the application of continuous metallic and carbon conductors, intensely heated by the passage of

a current of electricity to the purpose of illumination" * * * "when carbon is used, it becomes necessary on account of the affinity this substance has for oxygen at high temperature, to exclude from it air and moisture. To accomplish this in the most perfect manner, it should be enclosed in a torricellian vacuum." He does not confine himself to any particular kind of carbon. It is true he does afterwards say "that form of carbon found on the interior of coal-gas retorts which have long been used, is well suited for this purpose;" but his claim is general for "the application of metallic and carbon conductors intensely heated, &c.," and the use of wood carbon would have infringed the patent. Greener and Staite, in their patent of 1846, in describing how they prepared the carbon for the incandescing stems in their lamps, say: "We take a quantity of lamp-black or of charcoal reduced to powder, or of coke reduced also to powder, which has been purified, &c. The carbon thus highly purified we next bring into a state of great dryness and then convert it into solid prisms, or into cylinders both solid and hollow, &c." The charcoal here referred to is clearly wood charcoal. Roberts in his patent of 1852 says: "Another part of my invention consists of a mode of obtaining electric light by passing a current of electricity through a thin piece of graphite, coke or charcoal, or other infusible body, being a conductor of electricity, whilst it is inclosed in a vacuum or space not containing any oxygen or other matter which can cause the combustion or destruction of it when brought into an incandescent state by the action of the current of electricity." This certainly refers to wood charcoal. We have already alluded to Konn's patent of 1872, in which he claims carbon stems generally, arranged as specified in the patent, for giving incandescent light. We may add that in the earliest experiments of Sir Humphrey Davy and others, on the effects of the electric current in producing light in various substances, charcoal was one of the most frequent articles used for that purpose. Long prior to 1878, it was a well-known fact in science and the arts, that the transmission of the electric current through a pencil of charcoal interposed in a metallic circuit, would produce intense light; and that when this charcoal was guarded from contact with oxygen, in a vacuum or otherwise, it would not be consumed. This is fully verified not only in scientific writings, but by the statements found in several of the patents referred to. The great desideratum was to construct an apparatus and to discover a process which would make the light economical and convenient of use for ordinary domestic purposes. We are clearly of opinion therefore, that neither Sawyer and Man nor Edison can maintain any just claim to the exclusive use of charcoal generally, in any form, as an incandescing conductor in an electric lamp. This view of the subject is sufficient to decide the present case against the complainant. But there are other considerations which go to corroborate the conclusion to which we have come; which however we shall only cursorily examine.

It is very clear to us that in the original application for the patent sued on, the applicants had no such object in view as that of

claiming all carbon made from fibrous and textile substances as a conductor for an incandescing electric lamp. Nothing on which to base any such claim is disclosed in the original application. We have carefully compared it with the amended application on which the patent was issued, and are fully satisfied that after Edison's inventions on this subject had been published to the world,
146 there was an entire change of base on the part of Sawyer and Man, and that the application was amended to give it an entirely different direction and purpose from what it had in its original form. It is true that the last claim of the original was for "an illuminating arc made of carbonized fibrous or textile material." But this claim had special reference to the arched form of the conductor rather than to the material of which it was composed. And this claim is the only expression in the application which even suggests any exclusive right to all vegetable carbons, or any invention or discovery in relation thereto. No advantage in the use of said carbon is anywhere alleged. The whole scope and purpose of the application related to the arched form of the conductor. A subsidiary purpose was to claim carbon made from paper or pasteboard. They say distinctly, "Our improvement consists in the employment of an incandescent arc of carbon in the circuit as the light-giving medium;" "carbon" generally, not any particular carbon. By an adroit amendment made in 1885, they say: "Our improvement relates more especially to the incandescing conductor, its substance, its form, and its combination with the other elements composing the lamp." The purpose of this amendment is obvious, and needs no comment. After explaining the drawings, the original application goes on to say: "Our improved burner or incandescent arc consists of an arched shaped or semicylindrical piece of carbon A, mounted in its clamps or supports in the usual well-known ways. We have tried carbonized paper covered with powdered plumbago, wood carbon or charcoal, and ordinary gas carbon. We have also used such arcs or burners of various shapes, such as pieces with their lower ends secured to their respective supports, and with their upper ends united so as to form an inverted V-shaped burner. We have also used arcs of varying contour, that is, with rectangular bends instead of curvilinear ones, but prefer the arched shaped, as the shadow cast by such a burner is less than that produced by other forms
147 of burners. We have used such burners in close transparent chambers, in a vacuum, in nitrogen gas and in hydrogen gas, but have attained the best results in a vacuum or attenuated atmosphere of nitrogen, the great desideratum being to exclude oxygen from the combustion chamber, as is well understood. The operation of our improved apparatus will readily be understood from the foregoing description." Then come the claims as follows: "First. Incandescing arcs for electric lights, made of carbon substantially as hereinbefore set forth. Second. Incandescing arcs of carbon in combination with the circuit of an electric light. Third. The combination substantially as hereinbefore set forth, of the circuit of an electric light, an incandescing arc of carbonized paper included in

the circuit, and a close transparent chamber in which the arc is inclosed. Fourth. An incandescing arc made of carbonized fibrous or textile material."

This is the whole of the original application, except the formal introduction. The arc is everything. The changes are rung on the arc. The fact is, that Sawyer and Man were unconscious that the arc was not new, and supposed that they could get a patent for it; but as their eyes were opened, they changed about and amended their application, and made the material of the conductor the great object—carbon made from fibrous or textile material. Compare the original with the amended application, as first stated in this opinion and this purpose most obviously appears. The carbons mentioned in the original application are merely mentioned by the way, to show that the arched form would apply to all kinds of carbon. "We have tried carbonized paper, covered with powdered plumbago, wood carbon, and ordinary gas carbon." This is changed in the amended application to the words, "in the practice of our invention, we have made use of carbonized paper, and also wood carbon." The object of this change is manifest. In other parts of the amended specification, the importance of vegetable carbon as distinguished
148 from gas carbon is dwelt upon. Thus, they say in a former paragraph: "Our improvement consists, first, of the combination in a lamp chamber, composed wholly of glass, and described in patent No. 205,144, of an incandescing conductor of carbon, made from a vegetable fibrous material, in contradistinction to a similar conductor made from mineral or gas carbon, and also in the form of such conductors, so made from such vegetable carbon and combined in the lighting circuit within the exhausted chamber of the lamp."

The fact that the whole object of the application was changed, is evidenced by the correspondence of the parties. In a letter from Wm. B. Baldwin, one of the attorneys of the applicants for the patent to his clients, The Electro-Dynamic Light Co. (who then owned the interest in the invention), dated Jan. 8, 1880, he says: "I have this day prepared an application for patent of arched form of an incandescent carbon electric lamp, made by Wm. E. Sawyer and Albon Man, as joint inventors, containing a request for the issuing of such patent to your company, &c.—I will not make any alteration in the claims or specification of said patent, enlarging its scope beyond its intended purpose of covering the arched or angular form of the carbon used for incandescent electric lights." In a letter from Albon Man, one of the applicants for the patent, to a Mr. Cheever, dated December 12th, 1880, he says: "I have received your two notes of 11th inst. enclosing letter from the Patent Office, advising Messrs. Baldwin, Hopkins and Payton, of substitution of Mr. Broadnax as attorney in carbon-arch matter." This had relation to the application in question, Baldwin, Hopkins, and Payton being the solicitors in the case, and Mr. Broadnax being substituted in their place. "Carbon-arch matter" are words that could hardly be more suggestive.

As before stated, Edison had filed an application for a patent in December, 1879, about a month prior to the application in question,

and in September, 1880, an interference was declared between
149 the two applications. The controversy raised on this interference related principally to carbon made from paper, which Edison claimed in his application. The case was not finally decided until the beginning of 1885. Mr. Broadnax was examined as a witness in this suit, and testified as follows: "After the decision of the Commissioner of Patents of the interference, awarding priority of invention to Sawyer and Man, I resumed the prosecution of the application insisting upon our right to the claims that had been once rejected by the examiner, among which was one for the U-shaped or loop carbon illuminant. My attention was then called for the first time by the examiner to the British patent of Konn, in which is shown an arch-shaped carbon illuminant, and which as I thought, anticipated broadly the claim for the U-shaped or arch-shaped carbon illuminant, and then in the discussion of the case with the examiner, my attention was called to the patentability of the fibrous carbon illuminant as such, on account of the properties such carbon possessed, which made it available for electric lighting above all other carbons." Being asked when this was, he said it followed soon after the decision of the Commissioner of Patents upon the question of priority, or as soon as he could, in the ordinary course, get the case before the primary examiner again; his best recollection was that it occurred in February, 1885.

This testimony of Mr. Broadnax, which is undoubtedly to be relied on, in connection with the letter just quoted, shows that the idea of claiming carbons made from fibrous and textile materials was an after-thought, and was no part of the purpose of the original application. The amendments relating to this new and broad claim were made afterwards, in February and March, 1885.

We are of opinion that the changes made in the application in this regard were not justifiable, and that the claim in question cannot be sustained.

There are other aspects of the case to which we might refer
150 which operate strongly against the claim of the complainants. We are not at all satisfied that Sawyer and Man ever made and reduced to practical operation any such invention as is set forth and claimed in the patent in suit. Their principal experiments were made in 1878, and perhaps the beginning of 1879. The evidence as to what they accomplished in the construction of electric lamps is so contradictory and suspicious that we can with difficulty give credence to the conclusions sought to be drawn from it. We are not satisfied that they ever produced an electric lamp with a burner of carbon made from fibrous material or any material which was a success. During the year referred to, 1878, and the beginning of 1879, they applied for and obtained ten different patents (besides an English patent) on the subject of electric lamps; but not one of them contains a suggestion or a hint of any such invention as is claimed in the patent in suit, which was not applied for until 1880. They all relate to lamps with straight pencil burners, generally of carbon, but without any preference given to one kind of carbon over another. The application for the patent in suit was

not made until January, 1880, nearly or quite a year after all their experiments had ceased, and after the inventions of Edison had been published to the world. One cannot read the patents before applied for by Sawyer and Man, with all their detail of apparatus and process for constructing and managing the straight-stem conductors, without distinction of carbons—apparatus and processes, many of which would be needless in the lamp now claimed—without indulging some degree of astonishment at the pains and ingenuity gratuitously expended or wasted, if it was true that, all the time, they had in their possession a secret invention which would take the place of those complicated contrivances. The explanations made by the complainants for the delay in applying for the patent in suit fail to satisfy our minds that Sawyer and Man, or their assignees for them, have not sought to obtain a patent to which they were not legitimately entitled.

151 But suppose it to be true, as the supposed inventors and some of the other witnesses testify, that they did, in 1878, construct some lamps with burners of carbon made of fibrous material and of an arched shape, which continued to give light for days or weeks, or months; still, were they a successful invention? Would any one purchase or touch them now? Did they not lack an essential ingredient which was necessary to their adoption and use? Did they go any farther in principle, if they did in degree, than did other lamps which had been constructed before? It seems to us that they were following a wrong principle—the principle of small resistance in an incandescing conductor, and a strong current of electricity; and that the great discovery in the art was that of adopting high resistance in the conductor with a small illuminating surface, and a corresponding diminution in the strength of the current. This was accomplished by Edison in his filamental thread-like conductors, rendered practicable by the perfection of the vacuum in the globe of the lamp. He abandoned the old method of making the globe in separate pieces, cemented together, and adopted a globe of one entire piece of glass, into which he introduced small platinum conductors, fastened by fusion of the glass around them, thus being able to procure and maintain perhaps the most perfect vacuum known in the arts. In such a vacuum the slender filaments of carbon attenuated to the last degree of fineness, may be maintained in a state of incandescence without deterioration, for an indefinite time, and with a small expenditure of electric force. This was really the grand discovery in the art of electric lighting, without which it could not have become a practical art for the purposes of general use in houses and cities.

It is unimportant to trace the various steps by which this great discovery was arrived at. It is well indicated and shown in Edison's patent applied for in April, 1879, and issued May 4, 1880, number 227,229; and is more fully described in that which he applied for November 4, 1879, and issued January 27, 1880,

152 number 223,898. An extract from the latter will serve to explain the principles of this invention. Edison there says: "Heretofore light by incandescence has been obtained from rods

of carbon of one to four ohms resistance, placed in closed vessels, in which the atmospheric air has been replaced by gases that do not combine chemically with carbon. The vessel holding the burner has been composed of glass, cemented to a metallic base. The connection between the leading wires and the carbon has been obtained by clamping the carbon to the metal. The leading wires have always been large so that their resistance shall be many times less than the burner, and, in general, the attempts of previous persons have been to reduce the resistance of the carbon rod. The disadvantages of following this practice are, that a lamp having but one to four ohms resistance cannot be worked in great numbers in multiple arc without the employment of main conductors of enormous dimensions; that owing to the low resistance of the lamp, the leading wires must be of large dimensions and good conductors, and a glass globe cannot be kept tight at the place where the wires pass in and are cemented, hence the carbon is consumed, because there must be almost a perfect vacuum to render the carbon stable, especially when such carbon is small in mass, and high in electrical resistance.

"The use of a gas in the receiver at the atmospheric pressure, although not attacking the carbon, serves to destroy it in time by air-washing or the attrition produced by the rapid passage of the air over the slightly coherent highly heated surface of the carbon. I have reversed this practice. I have discovered that even a cotton thread properly carbonized and placed in a sealed glass bulb, exhausted to one millionth of an atmosphere, offers from 100 to 500 ohms resistance to the passage of the current, and that it is absolutely stable at very high temperature; that if the thread be coiled as a spiral, and carbonized, or if any fibrous vegetable substance which will leave a carbon residue after heating in a closed
153 chamber be so coiled, as much as 2,000 ohms resistance may be obtained without presenting a radiating surface greater than three-sixteenths of an inch; that if such fibrous material be rubbed with a plastic compound of lamp-black and tar, its resistance may be made high or low according to the amount of lamp-black placed upon it; that carbon filaments may be made by a combination of tar and lamp-black, the latter being previously ignited in a closed crucible for several hours and afterward moistened and kneaded until it assumes the consistency of thick putty. Small pieces of this material may be rolled out in the form of wire as small as seven one-thousandths of an inch in diameter, and over a foot in length, and the same may be coated with a non-conducting, non-carbonizing substance and wound on a bobbin, or as a spiral, and the tar carbonized in a closed chamber by subjecting it to high heat, the spiral after carbonization retaining its form.

"All these forms are fragile, and cannot be clamped to the leading wires with sufficient force to insure good contact and prevent heating. I have discovered that if platinum wires are used, and the plastic lamp-black and tar material be molded round it, in the act of carbonization, there is an intimate union by combination and by pressure between the carbon and platina, and nearly perfect con-

tact is obtained without the necessity of clamps; hence the burner and the leading wires are connected to the carbon ready to be placed in the vacuum bulb. When fibrous material is used the plastic lamp-black and tar are used to secure it to the platina before carbonizing.

"By using the carbon wire of such high resistance I am enabled to use fine platinum wires for leading wires, as they will have a small resistance compared to the burner, and hence will not heat and crack the sealed vacuum bulb. Platina can only be used, as its expansion is nearly the same as that of glass.

* * * * * * *

"I have carbonized and used cotton and linen thread, wood splints, papers coiled in various ways, also lamp-black, plum-
154 bago and carbon in various forms mixed with tar, and kneaded so that the same may be rolled out into wires of various lengths and diameters. Each wire, however, is to be uniform in size throughout."

The first claim of this patent is for an electric lamp for giving light by incandescence, consisting of a filament of carbon of high resistance, made as described, and secured to metallic wires as set forth. The second claim is the combination of such filaments with the receiver made entirely of glass.

Of course the form of the filament in the receiver or globe may be varied at pleasure; it may be in the shape of a coil, or of a horse-shoe, or it may be wound on a bobbin. All these forms are old. The principal and great thing described is the attenuated filament, and its enclosure in a perfect vacuum. There may be a preference of materials from which the filament is made. Practice will evolve all these collateral advantages.

We think we are not mistaken in saying that but for this discovery, electric lighting would never have become a fact. We have supposed it to be the discovery of Edison, because he has a patent for it. This may not be the case; it may be the discovery of some other person. But whoever discovered it, it is undoubtedly the great discovery in the art of practical lighting by electricity. We have given a more detailed account of it, in order to illustrate what we mean when we raise the question whether the claimed inventions of Sawyer and Man were ever successful. They may have made a lamp that would burn; but was it a success, or was it a failure? Did it ever go into use? What was the object of all the experiments made by them and others? Was it not to make an electric lamp that could be successfully used by the public, and have a commercial value? Did they succeed in making such a lamp, or in finding out the principle on which it could be made? We do not so read the evidence.

The bill must be dismissed.

155 UNITED STATES OF AMERICA, }
Western District of Pennsylvania, } *ss:*

I, H. D. Gamble, clerk of the circuit court of the United States, for said district, do hereby certify that the writing hereto annexed is a transcript of the original thereof on file and remaining of record in my office, in the cause therein mentioned.

[SEAL.] Witness my hand and the seal of said court, at Pittsburgh, in said district, this 18th day of September, A. D. 1891.

H. D. GAMBLE, *Clerk.*

156 *Patent in Suit.*

(2–175.)

DEPARTMENT OF THE INTERIOR,

(Coat of arms.)

UNITED STATES PATENT OFFICE.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted Thomas A. Edison, January 27, 1880, number 223,898, for improvement in electric lamps.

In testimony whereof, I, W. E. Simonds, Commissioner of Patents, have caused the seal of the Patent Office to be affixed [SEAL.] this — day of August, in the year of our Lord one thousand eight hundred and ninety-one, and of the Independence of the United States the one hundred and sixteenth.

W. E. SIMONDS,
Commissioner.

2–155.

No. 223,898.

THE UNITED STATES OF AMERICA.

(Cut.)

To all to whom these presents shall come:

Whereas, Thomas A. Edison, of Menlo Park, New Jersey,
157 has presented to the Commissioner of Patents a petition praying for the grant of letters patent for an alleged new and useful improvement in electric lamps, a description of which invention is contained in the specification, of which a copy is hereunto annexed and made a part hereof, and has complied with the various requirements of law in such case made and provided; and

Whereas, upon due examination made the said claimant is adjudged to be justly entitled to a patent under the law;

Now, therefore, these letters patent are to grant unto the said Thomas A. Edison, his heirs or assigns for the term of seventeen years from the twenty-seventh day of January, one thousand eight hundred and eighty, the exclusive right to make, use, and vend the said invention throughout the United States and the territories thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed at the city of [SEAL.] Washington, this twenty-seventh day of January, in the year of our Lord one thousand eight hundred and eighty, and of the Independence of the United States of America the one hundred and fourth.

A. BELL,
Acting Secretary of the Interior.

Countersigned:
H. E. PAINE,
Commissioner of Patents.

159 UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, of Menlo Park, New Jersey.

Electric Lamp.

Specification forming part of Letters Patent No. 223,898, dated January 27, 1880. Application filed November 4, 1879.

To all whom it may concern:

Be it known that I, Thomas Alva Edison, of Menlo Park, in the State of New Jersey, United States of America, have invented an improvement in electric lamps, and in the method of manufacturing the same, (case No. 186,) of which the following is a specification.

The object of this invention is to produce electric lamps giving light by incandescence, which lamps shall have high resistance, so as to allow of the practical subdivision of the electric light.

The invention consists in a light-giving body of carbon wire or sheets coiled or arranged in such a manner as to offer great resistance to the passage of the electric current, and at the same time present but a slight surface from which radiation can take place.

The invention further consists in placing such burner of great resistance in a nearly-perfect vacuum, to prevent oxidation and injury to the conductor by the atmosphere. The current is conducted into the vacuum-bulb through platina wires sealed into the glass.

The invention further consists in the method of manufacturing carbon conductors of high resistance, so as to be suitable for giving light by incandescence, and in the manner of securing perfect contact between the metallic conductors or leading-wires and the carbon conductor.

Heretofore light by incandescence has been obtained from rods of carbon of one to four ohms resistance, placed in closed vessels, in which the atmospheric air has been replaced by gases that do not combine chemically with the carbon. The vessel holding the burner has been composed of glass cemented to a metallic base. The connection between the leading-wires and the carbon has been obtained by clamping the carbon to the metal. The leading-wires have always been large, so that their resistance shall be many times less than the burner, and, in general, the attempts of previous persons have been to reduce the resistance of the carbon rod. The disadvantages of following this practice are, that a lamp having but one to four ohms resistance cannot be worked in great numbers in multiple arc without the employment of main conductors of enormous dimensions; that, owing to the low resistance of the lamp, the leading-wires must be of large dimensions and good conductors, and a glass globe cannot be kept tight at the place where the wires pass in and are cemented; hence the carbon is consumed, because there must be almost a perfect vacuum to render the carbon stable, especially when such carbon is small in mass and high in electrical resistance.

The use of a gas in the receiver at the atmospheric pressure, although not attacking the carbon, serves to destroy it in time by "air-washing," or the attrition produced by the rapid passage of the air over the slightly-coherent highly-heated surface of the carbon. I have reversed this practice. I have discovered that even a cotton thread properly carbonized and placed in a sealed glass bulb exhausted to one-millionth of an atmosphere offers from one hundred to five hundred ohms resistance to the passage of the current, and that it is absolutely stable at very high temperatures: that if the thread be coiled as a spiral and carbonized, or if any fibrous vegetable substance which will leave a carbon residue after heating in a closed chamber be so coiled, as much as two thousand ohms resistance may be obtained without presenting a radiating-surface greater than three-sixteenths of an inch; that if such fibrous material be rubbed with a plastic composed of lamp-black and tar, its resistance may be made high or low, according to the amount of lamp-black placed upon it; that carbon filaments may be made by a combination of tar and lamp-black, the latter being previously ignited in a closed crucible for several hours and afterward moistened and kneaded until it assumes the consistency of thick putty. Small pieces of this material may be rolled out in the form of wire as small as seven one-thousandths of a-inch in diameter and over a foot in length, and the same may be coated with a non-conducting non-carbonizing substance and wound on a bobbin, or as a spiral, and the tar carbonized in a closed chamber by subjecting it to high heat, the spiral after carbonization retaining its form.

All these forms are fragile and cannot be clamped to the leading-wires with sufficient force to insure good contact and prevent heating. I have discovered that if platinum wires are used and the plastic lamp-black and tar material be molded around it in
160 the act of carbonization there is an intimate union by combination and by pressure between the carbon and platina, and nearly perfect contact is obtained without the necessity of clamps; hence the burner and the leading-wires are connected to the carbon ready to be placed in the vacuum-bulb.

When fibrous material is used the plastic lamp-black and tar are used to secure it to the platina before carbonizing.

By using the carbon wires of such high resistance I am enabled to use fine platinum wires for leading-wires, as they will have a small resistance compared to the burner, and hence will not heat and crack the sealed vacuum-bulb. Platina can only be used, as its expansion is nearly the same as that of glass.

By using a considerable length of carbon wire and coiling it the exterior, which is only a small portion of its entire surface, will form the principal radiating-surface; hence I am able to raise the specific heat of the whole of the carbon, and thus prevent the rapid reception and disappearance of the light, which on a plain wire is prejudicial, as it shows the least unsteadiness of the current by the flickering of the light; but if the current is steady the defect does not show.

I have carbonized and used cotton and linen thread, wood splints,

papers coiled in various ways, also lamp-black, plumbago, and carbon in various forms, mixed with tar and kneaded so that the same may be rolled out into wires of various lengths and diameters. Each wire, however, is to be uniform in size throughout.

If the carbon thread is liable to be distorted during carbonization it is to be coiled between a helix of copper wire. The ends of the carbon or filament are secured to the platina leading-wires by plastic carbonizable material, and the whole placed in the carbonizing-chamber. The copper, which has served to prevent distortion of the carbon thread, is afterward eaten away by nitric acid, and the spiral soaked in water, and then dried and placed on the glass holder, and a glass bulb blown over the whole, with a leading-tube for exhaustion by a mercury-pump. This tube, when a high vacuum has been reached, is hermetically sealed.

With substances which are not greatly distorted in carbonizing, they may be coated with a non-conducting non-carbonizable substance, which allows one coil or turn of the carbon to rest upon and be supported by the other.

(Here follows diagram marked p. 158.)

In the drawings, figure 1 shows the lamp sectionally. *a* is the carbon spiral or thread. *c c'* are the thickened ends of the spiral, formed of the plastic compound of lamp-black and tar. *d d'* are the platina wires. *h h* are the clamps, which serve to connect the platina wires, cemented in the carbon, with the leading-wires *x x*, sealed in the glass vacuum-bulb. *e e* are copper wires, connected just outside the bulb to the wires *x x*. *m* is the tube (shown by dotted lines) leading to the vacuum-pump, which, after exhaustion, is hermetically sealed and the surplus removed.

Fig. 2 represents the plastic material before being wound into a spiral.

Fig. 3 shows the spiral after carbonization, ready to have a bulb blown over it.

I claim as my invention—

1. An electric lamp for giving light by incandescence, consisting of a filament of carbon of high resistance, made as described, and secured to metallic wires, as set forth.

2. The combination of carbon filaments with a receiver made entirely of glass and conductors passing through the glass, and from which receiver the air is exhausted, for the purposes set forth.

3. A carbon filament or strip coiled and connected to electric conductors so that only a portion of the surface of such carbon conductors shall be exposed for radiating light, as set forth.

4. The method herein described of securing the platina contact-wires to the carbon filament and carbonizing of the whole in a closed chamber, substantially as set forth.

Signed by me this 1st day of November, A. D. 1879.

THOMAS A. EDISON.

Witnesses:

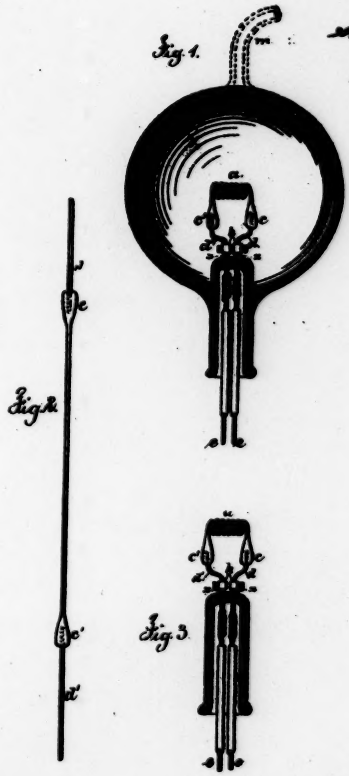
S. L. GRIFFIN.

JOHN F. RANDOLPH.

T. A. EDISON.
Electric-Lamp.

No. 223,898. **Patented Jan. 27, 1880.**

No. 118
Sawyer-Man Co.
v.
Edison Co.
p. 158.



Witnesses
Chas. H. Smith
Geo. T. Pinckney

Inventor
Thomas A. Edison
for Lemuel W. Serrell
atty

161 Circuit Court of the United States, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY. } In Equity.

Please take notice that the annexed affidavit of Jacob H. Herrick, in addition to the papers already served, will be read and used at the hearing on the motion for preliminary injunction in this cause, notice of which was served upon you October 29, 1892.

DYER & SEELY,
Solicitors for Complainants.

To Messrs. Kerr & Curtis, solicitors for defendant.
Dated New York, November 3, 1892.

162 Circuit Court of the United States, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY. } In Equity.

UNITED STATES OF AMERICA,
Southern District of New York, } *ss:*

Jacob H. Herrick, being duly sworn, deposes and says as follows: I am the president of The Edison Electric Light Company, one of the complainants herein, and I am also vice-president of The Edison General Electric Company, the other complainant.

The paper attached hereto and marked "Herrick's Exhibit F" is a copy of an advertisement taken from the "Electrical Engineer" for September 7, 1892, which advertisement is headed: "Westinghouse Electric & M'f'g Co., Pittsburgh, Pa.," and contains the following statement:

"Orders for apparatus, repairs and supplies formerly furnished by the United States Electric Lighting Company, Newark, N. J., should now be sent to this company, where they will receive prompt attention."

I have examined a file of the "Electrical Engineer," and I find that an advertisement of the Westinghouse Electric and Manufacturing Company, containing this same statement, appeared for the first time in the issue of September 7, 1892, and has appeared
163 in each number since that time, including the current number of November 2, 1892, except the number for October 19, 1892.

At the time I made my former affidavit herein I was not advised of the existence of the advertisements referred to.

JACOB H. HERRICK.

Subscribed and sworn to before me this 3d day of November, 1892.
CORNELIUS W. DEVER,
[SEAL.] *Notary Public* (131), *N. Y. City and County.*

164 HERRICK'S EXHIBIT F.

XXXIV. The Electrical Engineer. Sept. 7, 1892.

Westinghouse Electric and M'f'g Co., Pittsburgh, Pa., manufacturers of apparatus for arc lighting, incandescent lighting, long-distance transmission of power, street-railway generators, motors, and appliances.

Our alternating current incandescent apparatus is in use in 430 central stations, 1,000 isolated plants. Our arc apparatus is in use all over the world.

We are now transmitting light and power various distances up to 28 miles from the source.

Our multipolar railway generators and noiseless single-reduction motors have worked a revolution in the electric railway field in two years.

Orders for apparatus, repairs and supplies, formerly furnished by the United States Electric Lighting Company, Newark, N. J., should now be sent to this company, where they will receive prompt attention.

Branch offices in all the leading cities. Agents for Canada, Ahearn & Soper, Ottawa, Ont.

(Endorsed:) United States circuit court, southern district of New York. In equity. Edison Electric Light Company and Edison General Electric Company *vs.* Sawyer-Man Electric Company. Additional affidavit and notice on motion for preliminary injunction. Due and timely service of a copy of the enclosed affidavit and notice is hereby admitted this 4th day of November, 1892. Kerr & Curtis, sol'rs for def't. U. S. circuit court. Filed Nov. 19, 1892. John A. Shields, clerk.

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Circuit Court of the United States, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY *vs.* SAWYER-MAN ELECTRIC COMPANY. } In. Equity.

Please take notice that the annexed affidavit of Francis R. Upton, in addition to the papers already served, will be read and used at the hearing on the motion for preliminary injunction in this case now set for Friday, November 18th, 1892, at 11 o'clock a. m.

Dated New York, November 14, 1892.

DYER & SEELY,
Solicitors for Complainants.

To Messrs. Kerr & Curtis, solicitors for defendant.

Service of a copy of the above notice and annexed affidavit is hereby admitted this 14th day of November, 1892.

KERR & CURTIS,
Defendant's Solicitors.

166 United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

UNITED STATES OF AMERICA,
Southern District of New York, City and County of New York, } *ss:*

Francis R. Upton, being duly sworn, deposes and says as follows:

I am forty years of age, reside at Orange, New Jersey, and am the general manager of the Edison lamp works located at Harrison, New Jersey. I have had charge of the manufacture of the Edison incandescent electric lamps since the establishment of the factory for manufacturing such lamps in the fall of 1880, and have consequently followed the business of incandescent lamp manufacture from its inauguration to the present time.

I have read the affidavits of George W. Hebard, William H. Brown, Frederick Darlington and Edwin F. Baker, which criticise the commercial character of the 50-volt lamp made by the Edison Company. The affidavits of Darlington and Baker are the same affidavits which were made by the same parties for use in the motion for preliminary injunction against the Consolidated Electric Light Company, and were originally sworn to in September and October, 1891, and have evidently simply been copied and resworn to for the purposes of this case. The affidavit of Browne is a

167 copy of the affidavit of Caleb H. Jackson, another officer of the same company, which was filed in the case against the Consolidated Company, and was sworn to in September, 1891. Substantially the same affidavit of Mr. Hebard, sworn to October 22, 1891, was filed in the case against the Consolidated Company. In the earlier affidavit, however, Mr. Hebard did not refer to the Maxim patents, but stated, in place of the corresponding statement in folio 61 of his present affidavit: "But this process the Edison Company cannot use, since it is covered broadly by patents owned by the United States Company."

These four affidavits of Hebard, Browne, Darlington and Baker refer to the fifty-volt lamps which were made by the Edison Company prior to the dates on which the original affidavits were sworn to. The Edison fifty-volt lamps made prior to that date were entirely useful and commercial in their character, as is shown by the fact that upwards of 500,000 of such lamps were sold by the Edison Company. For the reasons stated in the affidavit of Mr. Hebard, viz., the non-use of the hydrocarbon treatment, such Edison fifty-volt lamps were not, however, as good, commercially, as the fifty-volt lamps of other makers who employed that treatment.

The United States Electric Lighting Company brought suit against the Edison Lamp Company on the patent of Edward Weston, No. 306,980, dated October 21st, 1884, which, in its terms, broadly covered the hydrocarbon-treatment process, and was the patent upon which the United States Electric Lighting Company relied to cover such process. On June 20th, 1892, his honor Judge Acheson delivered an opinion declaring such patent to be invalid (51 F. R., 24). I was then advised by the counsel of the Edison Company that the hydrocarbon-treatment process was common property and was open to be used by us. Since that time the Edison Company has been manufacturing fifty-volt lamps, the carbon filaments of which have been subjected to the hydrocarbon-treatment process, and such lamps have been proved by tests
168 which I have caused to be made, and by regular commercial use, to be as good in every respect as the fifty-volt lamps of other manufacturers. These lamps are now being made and sold in quantities in place of the fifty-volt lamps formerly made by the Edison Company. The Maxim patents, which are referred to in Mr. Hebard's affidavit, I am advised by counsel, cover only matters of detail and are not infringed by the hydrocarbon-treatment process now in use at the Edison factory.

The statement made by Mr. Hebard that "there are many lamps of various kinds and grades required for different plants which are not made by the complainants at all, and which it would require considerable time and experience to manufacture properly," is not true if it is intended to refer to lamps made by the defendant. The Edison Company manufactures all kinds and grades of lamps which the defendant manufactures.

FRANCIS R. UPTON.

Subscribed and sworn to before me this 14th day of November, 1892.

EUGENE CONRAN,
[SEAL.] *Notary Public, Kings and N. Y. Counties.*

(Endorsed:) U. S. circuit court. Filed Nov. 19, 1892. John A. Shields, clerk.

169 & 170 United States Circuit Court, Southern District of New York. In Equity.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.

Defendant's Answering Papers on Motion for Preliminary Injunction.

Kerr & Curtis, solicitors for defendant, 120 Broadway, New York city.

Edmund Wetmore, Elihu Root, Leonard E. Curtis, of counsel for defendant.

171 Circuit Court of the United States, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY, Complainants,
vs.
SAWYER-MAN ELECTRIC COMPANY, Defendant.
} In Equity.

The answer of Sawyer-Man Electric Company to the bill of complaint exhibited against it by the complainants, Edison Electric Light Company and Edison General Electric Company.

And now comes the defendant herein, and saving and reserving to itself all and all manner of benefit and advantage of exception to the various errors, uncertainties and imperfections in the said bill of complaint contained, but saving and reserving to itself the full benefit and advantage of the same, for answer to said bill, or to such parts thereof as this defendant is advised it is material and necessary for it to make answer unto, answering says:

1. This defendant admits that it is a corporation organized under the laws of the State of New York and having its principal place of business in the city of New York; also, that the complainant Edison Electric Light Company is a corporation organized under the laws of said State, and having its principal place of business in said city, and that said corporation was organized on the 31st day of
172 December, 1886, by the consolidation of two previously existing corporations named in the bill of complaint—viz., "The Edison Electric Light Company" and "The Edison Company for Isolated Lighting."

And this defendant further admits that the complainant Edison General Electric Company is a corporation organized under the laws of the State of New York, and having its principal place of business in the said city of New York.

2. This defendant admits that the Thomas Alva Edison named in the bill of complaint made application for letters patent of the United States, for an alleged improvement in electric lamps, on the 4th day of November, 1879, and that subsequently, but not until after various modifications had been made in the said application, letters patent of the United States were issued to him bearing date January 27, 1880, and numbered 223,898. But this defendant denies, in manner more explicitly hereinafter set forth, that the said Edison was the true, original and first inventor of the alleged improvement in electic lamps set forth in the said letters patent or to which the claims thereof relate, under any construction of the said invention or the said claims which would include the lamps made or used or sold by this defendant; and this defendant also denies that the said alleged improvement was not known or used in this country, and was not patented or described in a printed publication in this or any foreign country, before the said Edison's alleged invention or discovery thereof; and that it was not in public use or on sale in the United States more than two years prior to his said application; and that the said Edison, in making the said application, complied

with the requirements of the law in that behalf, and especially that he filed in the Patent Office a written description of his alleged improvement, of the character required by law; and that there was any due examination as to the novelty and utility of the said
173 alleged improvement, as required by law; and that the said letters patent granted to or conferred upon the said Edison, his heirs and assigns, for the term of seventeen years from the date thereof, the exclusive right to make, use and vend the said alleged invention in the United States; and as to all these matters this defendant leaves the complainants to make such proof as they may be advised.

3. As to the alleged assignment of February 12, 1880, whereby, as is set forth in the bill of complaint, the said Edison granted or conveyed to the Edison Electric Light Company the said letters patent No. 223,898, this defendant avers that it has no knowledge in regard thereto, and it therefore leaves the complainants to make such proof in this regard as they may deem proper and material.

4. This defendant, further answering, denies that by or upon the consolidation of the said The Edison Electric Light Company and the said The Edison Company for Isolated Lighting the said letters patent No. 223,898 were transferred to and became vested in the complainant Edison Electric Light Company; but, on the contrary, this defendant alleges that the consolidation of the said two companies was ineffectual to transfer the title in the said letters patent to the new company, the said complainant, which was formed by the said consolidation.

And, as to the instrument in writing, whereby it is alleged in the bill of complaint that the said The Edison Electric Light Company granted, transferred and assigned to the complainant Edison Electric Light Company the said letters patent No. 223,898, this defendant alleges that if any such instrument in writing was actually made and delivered (as to which, together with all connected material facts, this defendant demands strict proofs), the execution and delivery thereof was a nullity, inasmuch as, as this defendant is informed and believes, they did not take place until long
174 after the said The Edison Electric Light Company had become extinct by the said act of consolidation, and the various officers who assumed to execute and deliver the said instrument on behalf of the said company had become *functi officio;* and, inasmuch as both of the constituent companies became extinct upon their consolidation, this defendant denies that any resolution of the so-called executive committee of the board of trustees of the said The Edison Electric Light Company (if in fact any resolution relating to the matter was ever passed by the said committee) could empower the said company, or the officers of the said company, to make or deliver any deed of assignment of the said patent after the consolidation had taken place.

This defendant further denies that the so-called executive committee of the board of trustees of the said The Edison Electric Light Company ever had power to direct or authorize the said company or the officers thereof to grant, transfer and assign away the said

letters patent No. 223,898, and therefore alleges that the resolution of said committee, under date of December 30, 1886 (if, in fact, any such resolution was ever passed) was without force or effect.

This defendant, therefore, denies that by virtue of the said consolidation, or by virtue of the alleged instrument in writing made and delivered after the said consolidation, or by virtue of the said consolidation and the said instrument in writing, the complainant Edison Electric Light Company became or is the sole and exclusive owner of the said letters patent No. 223,898 and of all or any claims for the infringement or violation thereof and is entitled to sue for and receive said claims to its own use, all as is alleged in the bill of complaint.

5. This defendant, further answering, says that as to the alleged contract asserted in the bill of complaint to have been made between the Edison Electric Light Company and the said Thomas Alva Edison on March 8, 1881, and the alleged contract
175 asserted by the said bill to have been made between the said Edison Electric Light Company and the said Edison and the Edison Lamp Company, on Nov. 25, 1887, and whether the persons named in the bill of complaint as interested with the said Edison in the first of the said contracts were in fact so interested, and whether in fact the said Edison and his alleged associates or partners assigned to the Edison Lamp Company all of their interest in said contract and all claims thereunder, this defendant says that it does not know what the facts are, and therefore demands of the complainants that they make strict proof as to all such matters; and this defendant believes, and therefore avers the fact to be, that the allegations in the bill of complaint contained, in regard to the contract relations between the said The Edison Electric Light Company and the said Thomas Alva Edison and the said The Edison Lamp Company, do not fully and correctly set forth the nature of such relations, and, therefore, especially this defendant demands that the complainants make full disclosure regarding the same.

And as to the allegations of the bill of complaint, to the effect that all the right, title and interest of the said Edison and the said The Edison Lamp Company, in the said alleged agreement of March 8, 1881, as modified by the said alleged agreement of Nov. 25, 1887, were assigned to and became vested in Edison General Electric Company, together with all connected claims for damages and profits, this defendant says that it has no knowledge, and it therefore denies all the allegations of the bill in such regard, and demands of the complainants strict proof regarding the same. And especially does this defendant aver, upon information and belief, that all the rights of every nature whatever which the said Edison or the said The Edison Lamp Company has at any time assigned to the said Edison General Electric Company, have been conveyed by instruments in writing, and this defendant believes that the
176 scope and effect of such conveyances can be ascertained only by an inspection of the said written instruments, and therefore this defendant demands that the complainants produce all of

the said written instruments for its examination as to the truth of the matters in the bill of complaint contained.

6. This defendant, further answering, upon information and belief, denies that since the 12th day of January, 1880, the manufacture of incandescent lamps under patent No. 223,898 has been carried on by the complainant Edison Electric Light Company, or its predecessor, the Edison Electric Light Company, but alleges the fact to be that neither of the said corporations has been engaged in the manufacture of lamps under the said patent since the date of its issue.

7. This defendant, further answering, denies the allegation of the bill of complaint to the effect that the complainants are the sole and exclusive owners of letters patent No. 223,898, and of all claims for infringement or violation thereof, and that they are entitled to sue for and receive said claims to their own use.

8. This defendant, further answering, denies that the alleged invention, to which the said letters patent No. 223,898 relate, is of any public utility, or that the making of the same by the said Edison has made practical and commercial the subdivision of the electric light and the construction of practical and commercial lamps for giving light by electrical incandescence; but, on the contrary, this defendant, in like manner, alleges that the said invention has not contributed, in any measure whatever, to the practical introduction of incandescent electric lighting, but the somewhat extensive introduction of the incandescent electric light into public use which has taken place within the last ten years has been, as this defendant verily believes, the result wholly of other inventions than
177 that disclosed by the patent in suit and covered by the claims thereof, and particularly has been due to certain inventions relating to the manufacture of carbon burners invented by William E. Sawyer and Albon Man, and for which letters patent of the United States have heretofore been granted to the said Sawyer and Man or to their assignees and under which letters patent this defendant has been duly licensed to make the lamps complained of in the bill of complaint; and this practical introduction of the incandescent lamp has been due, in large measure, to the persistent efforts to that end which this defendant and its licensors have made continually during the past ten years, by the use of the various inventions which it or they have owned and controlled, and at an expenditure of many hundreds of thousands of dollars.

And this defendant denies that there have been used in the United States thirteen million, or any number of lamps embodying the invention of patent No. 223,898 and manufactured by the complainants herein or their predecessors, or that there are now in use in the United States one million or any number of such lamps so made. On the contrary, this defendant avers, on information and belief, that neither of the complainants has ever made for commercial purposes or licensed to be made for such purposes any lamps like those patented in the said letters patent, and that the lamp therein shown and described and claimed is of no practical value whatever and could not be made and sold commercially.

And this defendant further denies that the public generally, in all or any parts of the United States, have recognized and acknowledged the validity of the said letters patent; and denies that the claims of the complainants and their predecessors in interest, of the exclusive right to the said alleged invention, have been generally or largely acknowledged and acquiesced in. On the contrary, this defendant, on information and belief, alleges the fact to be, that among those who are conversant with such matters, and
178 whose opinion or judgment in the premises is of any value, the belief generally obtains that the alleged invention which the said letters patent profess to describe and claim is of no practical value or importance, and has in nowise contributed to the development of the art of incandescent lighting; and many persons and companies have for years past been engaged in the manufacture of lamps of substantially the same character as the lamps of this defendant which are charged in the bill of complaint to be an infringement of letters patent No. 223,898, in the full belief that the said patent cannot be construed to cover such lamps, and that said patent, if so construed, is invalid.

9. This defendant, further answering, denies that, unlawfully, wrongfully, and injuriously, without the license or consent of the complainants, or their predecessors in interest, it has made, used or sold, or caused to be made, used or sold, any incandescent lamps which severally contained and employed any invention secured by the claims of said patent No. 223,898, or that it is now engaged in making such lamps.

And this defendant further denies that any acts by it performed have resulted in any injury to the complainants as to any right secured to said complainants by or under the said letters patent; and defendant also denies that great or any gains and profits have accrued to it from the making, selling or using of any invention secured to the complainants by or under the said letters patent.

10. This defendant, further and specially answering, upon information and belief, alleges that, before any invention or discovery by the said Edison of the alleged improvement in electric lamps to which it is claimed that the said letters patent No. 223,898 relate, the same, or substantial and material parts thereof, had been known to and invented by others, and had been publicly used by
179 others; and had also been patented and described in printed publications—all as is more specifically set forth in the statements following:

The said alleged invention, or material and substantial parts thereof, had been invented by or were known to and were used by the following persons, at the places named:

William E. Sawyer and Albon Man, who used the same in the city of New York, and whose use of it was known to Amos Broadnax, of Brooklyn, N. Y.; to William H. Church, Lawrence Myers and Jacob Hayes, of New York city; to Thomas B. Stillman, of Hoboken, N. J.; to William Sawyer, now dead, and many others. The said William E. Sawyer is dead, but Albon Man resides in the city of Brooklyn.

Hiram S. Maxim, who resides in London, England, and who used the same in the city of New York, to the knowledge of many persons, stockholders and employees of the United States Electric Lighting Company.

Edward Weston, who resides in Newark, N. J., and who used the same in the city of Newark, to the knowledge of Edward Quimby, of Orange, N. J., and of various other persons.

Isaac Adams, who resides at Cambridgeport, Mass., and who used the same in Boston, Mass., in the city of New York, and in Paris, France, and whose use of the same was known to Aquila Adams, who resides in Sandwich, N. H., to H. Julius Smith, who resides at Pompton, N. J., and others.

Moses G. Farmer, who resides at Eliot, Maine, and who used the same at Newport, R. I., and at Boston, Mass.

Prof. Osborne, of Miami university, who used the same at Oxford, Ohio, and elsewhere.

Henry Gobel, of New York city, who used the same in the said city.

Walter K. Freeman, of New York city, who used the same at Racine, in the State of Wisconsin, and elsewhere.

180 The said alleged invention, or substantial and material parts thereof, had been patented and described in printed publications as follows:

United States letters patent to—

S. A. Kosloff, No. 166,877, August 17, 1875.

H. Woodward, No. 181,613, August 29, 1876.

W. E. Sawyer and A. Man, No. 205,144, June 18, 1878; No. 210,809, Dec. 10, 1878; No. 211,265, Jan. 7, 1879.

M. G. Farmer, No. 213,643, March 25, 1879.

Belgian letters patent to—

De Changy, 3244, August 28, 1856.

St. G. Lane Fox, 46482, October 30, 1878.

Italian letters patent to—

Ferdinand Brusotti, No. 282, of Nov. 30, 1877.

French letters patent to—

George & Delagogue, No. 12589, Nov. 6, 1851.

A. N. Lodaguine, No. 97583, of 1872.

—— Khotinsky, No. 107,307, March 19, 1875.

S. W. Kohn, No. 107,272, March 16, 1875.

—— Bouliguine, No. 108,415, Jan. 15, 1875.

Dobler & Stapfer, No. 127,498, Nov. 16, 1878.

St. G. Lane Fox, No. 128,056, Oct. 23, 1878.

Thomas A. Edison, No. 130,910, May 28, 1879.

Scotch letters patent to—

Edward A. King, on or about Nov. 26, 1845.

English or British letters patent to—

Edward A. King, No. 10919 of 1845.

W. Greener and W. E. Staite, No. 11076 of 1846.

Wm. Staite, No. 12212 of 1848.

E. C. Shepard, No. 13302 of 1850.

M. J. Roberts, No. 14189 of 1852.

S. W. Konn, No. 3809 of 1872.
S. W. Konn, No. 91 of 1873.
181 S. A. Kosloff, No. 441 of 1875.
P. Jansen, No. 970 of 1875.
E. G. Brewer, No. 2767 of 1875 (provisional).
C. W. Harrison, No. 3470 of 1878.
St. G. Lane Fox { No. 3988 of 1878. " 4043 of " " 4626 of " (provisional). " 1122 of 1879.
I. L. Pulvermacher, No. 4774 of 1878.
A. M. Thompson & H. D. Earl, No. 5281 of 1878.
Thomas F. Scott, No. 861 of 1878.
S. F. Van Choate, No. 4388 of 1878.
Thomas A. Edison, No. 2402, June 17, 1879.

Printed publications as follows:

(1) The official publications printed and published by the United States of America, by Belgium, by the Kingdom of Great Britain and Ireland, and by France, containing the specifications of the various patents above named as existing prior to the date of the invention by Edison of the alleged improvement described and claimed in the patent in suit.

(2) Also the following:

The Mechanics' Magazine, vol. 44, pp. 312–'16 and 398, published in London in the year 1846.

The London, Edinburgh and Dublin Philosophical Magazine, third series, vol. 27, pp. 442 *et seq.*, published in London in 1845.

Also same magazine, fifth series, vol. 3, p. 67 *et seq*, published in London in the year 1877.

Proceedings of the Royal Society, vol. 10, p. 432 *et seq.*, published in London in the year 1860.

Also same publication for the year 1875, vol. 23, p. 356 *et seq.*

Also same publication for the year 1878, vol. 27, p. 29–38.

Annalen der Physik und Chimie, p. 1 *et seq.*, published in Germany by Poggendorf in the year 1869.

Year Book of Facts, by Chas. W. Vincent, p. 138, published in London in the year 1874 by Ward, Lock & Tyler.

182 Letter of Lane Fox, published in the London Times in England on Dec. 26, 1878.

Lecture of Thomas A. Edison, delivered before the American Association for the Advancement of Science, at Saratoga, N. Y., in August, 1879, and published in that year at p. 173 of the volume of proceedings of said association for that year.

Les Mondes, vol. 1, p. 183 *et seq.*, published in Paris in the year 1875.

The Chemical News and Journal of Physical Science, vol. 36, p. 13 *et seq.*, published in London July 6, 1877.

Same journal, vol. 39, p. 168 *et seq.*, published in London in the year 1879.

The Scientific American, vol. 39, p. 351, published in the city of New York by Munn & Co. in the year 1878.

Same journal, vol. 40, p. 40, published in New York Jan. 18, 1879.

Engineering, p. 293, published in London by Maw & J. Dredge in the year 1878.

Transactions of the Newcastle-upon-Tyne Chemical Society, vol. 4, p. 190 *et seq.*, published at Newcastle-upon-Tyne, England, in the year 1878.

The Monthly Journal of Science, third series, vol. 1, p. 155 *et seq.*, and p. 168 *et seq.*, published in London in February of the year 1879.

The American Journal of Science and Art, third series, vol. 18, pp. 241–262, published in New Haven in the year 1879, by J. T. & E. S. Dana.

Philosophical Transactions of the Royal Society of London, published in London as follows:

Vol. 164, part II, pp. 501–528, published in the year 1874.

Vol. 165, part II, pp. 519–547, published in the year 1876.

Vol. 166, part II, pp. 325–376, published in the year 1877.

Vol. 169, part I, pp. 155–238, 243–318, published in the year 1878.

Vol. —, part I, pp. 49 *et seq.*, published in the year 1849.

183 Vol. —, part I, pp. 87–164, published in the year 1879.

Journal of the Society of Arts, vol. 21, p. 779, published in London in the years 1872–'3.

11. This defendant, further and specially answering, avers, on information and belief, that, in view of the state of the art of electric lighting and of the connected or allied arts, as they existed prior to the date of the supposed invention or discovery by the said Thomas Alva Edison of the alleged invention or improvement to which the said letters patent No. 223,898 relate, and particularly claim 2 thereof, and especially in view of the inventions disclosed in the various patents and publications in this answer named, the said alleged invention or improvement did not constitute a new and useful art, machine, manufacture or composition of matter, or any new and useful improvement thereof, within the meaning and intent of the statutes of the United States relating to the grant of patents for inventions and discoveries; that the things and combinations respectively specified and recited in the several claims of said letters patent as constituting the alleged invention thereby attempted to be patented, and especially the combination recited in claim 2, do not exhibit or embody any substantial variation or change from what belonged to the art as it existed prior to and at the date of said Edison's assumed invention, and did not involve the exercise of the inventive faculty or constitute patentable invention, or form the proper subject of letters patent, but were matters within the domain of common knowledge among persons then skilled in the art; and for this reason also this defendant avers, and will maintain, that said letters patent No. 223,898, and especially claim 2 thereof, were and are invalid and cannot be enforced.

12. This defendant, further and specially answering, avers, on information and belief, that the said Thomas Alva Edison sur-

184 reptitiously and unjustly obtained the said letters patent No. 223,898 for that which was, in fact, invented by others, viz.:

by William E. Sawyer and Albon Man, then residing in the city of New York, who were using reasonable diligence in adapting and perfecting the same.

13. This defendant, further answering, avers that if in fact the said Edison had made any practically useful invention pertaining to incandescent electric lamps, or to the art of incandescent electric lighting, prior to his application for the said letters patent No. 223,898, to which this suit relates, he failed to file in the Patent Office, in connection with his said application, as required by law as a condition precedent to the grant of a valid patent, a written description of the manner and process of making, constructing and using the invention in such full, clear, concise and exact terms as to enable a person skilled in the art or science of electric lighting or the connected arts to make, construct and use the same, and he failed to explain the principle of his alleged invention and the best mode in which he had contemplated applying that principle so as to distinguish it from other inventions, and he also failed to particularly point out and distinctly claim the part, improvement and combination which he claimed as his invention, as required by law to do; and this defendant avers that the specification which is annexed to the said letters patent is not such a description as the law requires, and that the said patent, therefore, is null and void.

14. And this defendant, further answering, avers on information and belief, that for the purpose of deceiving the public the description and specification filed by the said Edison in the Patent Office, in connection with his said application, was made to contain less than the whole truth relative to his alleged invention or discovery; and also that, for the same purpose, the claims of the said letters patent were drawn in ambiguous phrase so as to give the
185 patentee the opportunity of urging an interpretation that would make the said claims cover an invention or discovery broader than that which the said Edison had then made.

15. This defendant, further answering, on information and belief alleges that before the grant to the said Edison of the letters patent No. 223,898, on which the bill herein is brought, the invention to which the said letters patent relate had been patented by the said Edison, or with his consent and procurement in various foreign countries, viz: in the Dominion of Canada, on the 17th day of November, 1879, by letters patent No. 10654, granted for the term of five years; in the Republic of France, by letters patent No. 133,756, bearing date the 20th day of January, 1880, and granted for the term of fifteen years; in Belgium, by letters patent No. 49884, dated November 29, 1870; and in the Kingdom of Italy, by letters patent bearing date the 6th day of December, 1879, and issued for the term of six years from the 31st day of December, 1879; and this defendant avers and will maintain that by reason of the premises the Commissioner of Patents of the United States had no power under the law to issue a patent on the said invention for the term of seventeen years, and that if the said letters patent No. 223,898, on which the bill herein is brought, were issued for the term of seventeen years, as is alleged in the bill of complaint, they were so

issued without authority of law, and were and are null and void *ab initio*.

If, however, contrary to the allegations of the bill of complaint, the said letters patent were not granted for the term of seventeen years, then this defendant avers and will maintain that they were so limited by operation of law as to expire either at the same time with the actual expiration of that one of the various prior foreign patents for the same invention which for any cause was the first to expire or lose its force—that is, on or before the 5th day of March, 1883, as is more fully hereinafter set forth; or, if not with the actual expiration of such prior foreign patent, with the expiration
186 of the shortest term of any of the aforesaid foreign patents, current at the date of the issue of the said U. S. letters patent No. 223,898—that is, at the end of five years from the 17th day of November, 1879, this being the date of the aforesaid Canadian patent, which, as above set forth, was granted for the term of five years, which term, as this defendant is informed and believes, was the shortest term of any of the aforesaid prior foreign patents.

And this defendant, on information and belief, further avers that the aforesaid Canadian patent, granted to the said Edison on Nov. 17, 1879, was issued subject to the condition, embodied in the statutes of Canada under which the grant was made, to the effect that, "Under any circumstances, where a foreign patent exists, the Canadian patent shall expire at the earliest date at which any foreign patent for the same invention expires;" that a foreign patent for the same invention was issued in the Kingdom of Sweden upon the application of the said Edison, and said Swedish patent ceased as to power and effect, and thus expired, during the term of five years for which the said Canadian patent had been granted—viz., on the 5th day of March, 1883; and that by reason thereof, under the above-named provision of the Canadian laws, the said Canadian patent, although originally granted for the term of five years, expired at the same time with the Swedish patent, viz., on the 5th day of March, 1883.

For the above reasons this defendant avers and will maintain that the said United States letters patent No. 223,898, instead of being granted for a term of seventeen years as set forth in the bill of complaint, were either so limited as to expire, and did in fact expire, on the 5th day of March, 1883, when the said Canadian patent actually expired, or were so limited as to expire, and did in fact expire, with the term of five years for which the said Canadian patent was granted, viz., on the 17th day of November, 1884. In either case, the said United States patent was not granted for a term
187 of seventeen years; and in either case this defendant alleges and will contend that the said patent had expired before the bill herein was brought, and that, by reason thereof, either this court has no jurisdiction in equity over the alleged cause of action, and ought not to take cognizance of or entertain this suit—since the complainant, if it has any lawful demand against the defendant, has a plain, adequate and complete remedy at law—or, if the court

can hold the bill, it is without power to grant an injunction against the defendant, as prayed in the bill.

16. This defendant, further answering, says, on information and belief, that after the issue of the said letters patent No. 223,898, on which the bill herein is brought, viz., on or about Nov. 19, 1883, and before the filing of the bill herein, the Edison Electric Light Company, being at the time the assignee of record of the said patent, tendered the same to the Commissioner of Patents, accompanied with a petition setting forth that, prior to the grant of the same, the patentee had taken foreign patents on the same invention in Great Britain and Ireland, in Belgium, in France, in Italy and in Canada—the patent in the latter country being dated Nov. 17, 1879, and numbered 10654; that, in consequence of the omission of the said Edison to make such facts known to the Commissioner of Patents, the said patent had been granted "unlimited for the full term of seventeen years;" and that the said company was then advised that "the said letters patent, when issued, should have been limited on their face to the term of the foreign patent having the shortest term, dated prior to the date of the United States patent;" and that on the 18th day of December, 1883, in compliance with the said petition of the Edison Electric Light Company, the Commissioner of Patents and the Secretary of the Department of the Interior, by virtue of the power in them vested by the statutes relating thereto, made the following endorsement on the said letters patent:

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"DEPARTMENT OF THE INTERIOR,
"UNITED STATES PATENT OFFICE,
"WASHINGTON, D. C., *December* 18, 1883.

"In compliance with the request of the party in interest, letters patent No. 223,898, granted January 27, 1880, to Thomas A. Edison, of Menlo Park, New Jersey, for an improvement in 'electric lamps,' is hereby limited so as to expire at the same time with the patent of the following-named countries having the shortest time to run, viz: British patent, dated Nov. 10, 1879, No. 4576; Canadian patent, dated Nov. 17, 1879, No. 10654; Belgium patent, dated Nov. 29, 1879, No. 49884; Italian patent, dated Dec. 6, 1879, and French patent, dated Jan. 20, 1880, No. 133,756.

"It is hereby certified that the proper entries and corrections have been made in the files and records of the Patent Office.

"This amendment is made that the United States patent may conform to the provisions of section 4887 of the Revised Statutes.

"BENJAMIN BUTTERWORTH,
"*Commissioner of Patents.*

"Approved:
M. L. JOSLYN,
"*Acting Secretary of the Interior.*"

And this defendant alleges and will contend that, by virtue of the premises the complainants are estopped from now asserting that the patent, which was thus amended, is a patent having a term of seventeen years, as is alleged in the bill of complaint; and that by virtue

of these premises, independently of all other considerations, the said letters patent expired not later than the expiration of the term of the said Canadian patent current at the date of the issue of the said U. S. patent, viz., not later than Nov. 17, 1884, even if they did not expire, as this defendant will contend, on the 5th day of March, 1883, at which last-named date, according to the facts as above set forth, the said Canadian patent expired.

189 17. This defendant, further answering, admits that in July, 1891, the circuit court of the United States for the southern district of New York, rendered a decision in the suit of the Edison Electric Light Company against The United States Electric Lighting Company, in which it sustained the validity of the second claim of letters patent No. 223,898, and held the said claim to have been infringed by a certain form of lamp made by the said defendant; but this defendant avers that the said court found that the other claims of the said patent were not infringed by the lamps of the said The United States Electric Lighting Company, and in the interlocutory decree that was made and entered by the said court, the finding as to infringement is expressly limited to the second claim of the said patent; and so also the injunction awarded by the said decree was limited to the second claim.

And this defendant further admits that an appeal was taken from the aforesaid decree of the circuit court to the United States circuit court of appeals for the second circuit, and that a decision has been rendered by the said appellate court in substance affirming the decision below.

And this defendant denies that it was in any manner privy to the said suit against the United States Electric Lighting Company, or to the proceedings therein, or that it was interested in or contributed to the defense of the said suit; and, if it be true, as alleged in the bill of complaint, that the Westinghouse Electric Company conducted the defense of said suit, this defendant denies that the said Westinghouse Company was acting in such matter as its representative.

18. This defendant, further answering on information and belief, says that soon after the granting of the said letters patent No. 223,898, on which this suit is brought, other persons besides the owners of, and licenses under, the said patent—and notably the United States Electric Lighting Company and the Consoli-

190 dated Electric Light Company, from which latter company, as the owners of the various Sawyer-Man patents, this defendant in part derives its right to manufacture incandescent lamps—entered upon a vigorous and extensive manufacture and sale of incandescent electric lamps of substantially the same kind as those which are now charged by the complainant herein to be an infringement of the said patent; that such manufacture and sale by other parties than the owners of the said patent and their licensees was begun early in the year 1880 and has been carried on continuously to the present time; that the officers of the aforesaid The Edison Electric Light Company were fully advised of such manufacture and sale by such other companies from the very beginning, and yet

took no steps whatever, by suit or otherwise, to arrest the same until the month of May, 1885, when for the first time, as this defendant is informed and believes, a suit was brought under the said letters patent No. 223,898; that meanwhile the business of the said companies thus engaged in the manufacture and sale of incandescent lamps independently of the said Edison Company had grown to very large proportions, and millions of dollars had been invested by said companies in the manufacture of such lamps and in the manufacture and supply of other apparatus required in the installation of incandescent lighting plants, all of which was well known to the officers of the said The Edison Electric Light Company.

And this defendant believes and alleges the fact to be that the reason why the said The Edison Electric Light Company did not bring suit under the said letters patent No. 223,898 at an earlier day against the said companies thus engaged in a competing manufacture and sale of incandescent lamps was that neither the said Thomas A. Edison nor the said Edison Company regarded the said patent as capable of an interpretation that would cover or control such lamps as said companies were making, being substantially the same kind of lamps that have been made by this defendant; but
191 the said Edison and the said Edison Company, during those years of inactivity and acquiescence as aforesaid, were vigorously engaged in prosecuting before the United States Patent Office another application for letters patent with claims tantamount to the claims, and particularly to claim 2, of the patent now in suit, according to the construction which it is believed that the complainant herein now seeks to put upon the said claims, to which application of the said Edison and the said Edison Company, filed in the Patent Office on the 15th day of December, 1880, as a division of an earlier application filed on or about December 11, 1879, or a duly certified copy, to be produced in court, this defendant begs leave to refer in support of its contention in the premises.

And this defendant avers and will maintain that by reason of the long delay of the said The Edison Electric Light Company and its said licensees to assert any rights under the said letters patent No. 223,898, notwithstanding the extensive manufacture and sale of incandescent lamps by other companies, and especially by reason of their long delay to interfere with the operations of the said The Consolidated Electric Light Company, and the laches of the complainant herein Edison Electric Light Company, the complainants and their predecessors have lost and forfeited all right, if any, which they or any of them may ever have had to claim and recover either damages or profits from this defendant for any lamps it has made, and they have lost and forfeited all right, if any, which they or any of them may ever have had to an injunction against this defendant as prayed for in the bill of complaint.

19. And this defendant, further answering, says that it has a large amount of capital invested in the business of manufacturing incandescent lamps; that this capital was invested in the reasonable belief, warranted by the previous conduct of the owner of the said letters patent No. 223,898, that nothing in said patent contained

would be, or could be, made to interfere with the said busi-
192 ness; and that the effect of an injunction, as prayed for in the bill herein, would be highly injurious to defendant's business, thus legitimately established, and would greatly impair the said capital thus by it invested.

20. This defendant, further answering, on information and belief, avers that the complainants herein are not the real parties in interest, but that both of these companies have passed under the control of, and practically have become merged in, a new corporation known as General Electric Company, which is a corporation organized under the laws of the State of New York, in the month of April, 1892, with a capital stock of fifty millions of dollars, and which company, as defendant is informed and believes, owns all, or substantially all, of the capital stock of the complainant Edison General Electric Company, while the last-named company owns all, or substantially all, of the capital stock of the co-complainant Edison Electric Light Company; and if either of the complainants is engaged in the manufacture or sale of incandescent lamps, this deponent believes and avers that it is acting solely as the agent and servant of the said General Electric Company; and this defendant is informed and believes that this suit is instigated by the said General Electric Company, and is carried on by, and is in all particulars subject to, the direction and control of said company.

This defendant further avers, on information and belief, that the said General Electric Company was organized for the express purpose of buying up the capital stock of the complainant Edison General Electric Company, and thus controlling both it and the said Edison Electric Light Company, and also the capital stock of a certain other corporation organized under the laws of the State of Connecticut and known as Thompson-Houston Electric Company, and thus practically effecting a combination between the said two corporations; that, pursuant to this scheme for the combina-
193 tion of the said two companies, some fifteen million dollars of the capital stock of the said General Electric Company, par value, was set aside for the purchase of the capital stock of the said Edison General Electric Company, and some eighteen million four hundred thousand dollars of the capital stock of the said company was set aside for the purchase of the capital stock of the said Thomson-Houston Electric Company, and that substantially all of the said amounts of the capital stock of the said General Electric Company, thus set apart, were actually paid out respectively for the capital stock of the said two companies, Edison General Electric Company and Thomson-Houston Electric Company, prior to the bringing of the present suit, and that thereby the said General Electric Company became the owner of the said other two companies, with the controlling interest in the said General Electric Company vested in those persons who previously, and until the exchange of stock as aforesaid, had been the owners of the stock of the said Thomson-Houston Electric Company, and the said General Electric Company being in the main officered by persons who at the time of the organization of said company were officers of the said Thomson-

Houston Electric Company and who still retain their nominal positions as officers of said last-named company.

And this defendant further avers, on information and belief, that prior to the said combination effected as aforesaid the said two corporations had obtained the ownership or control of various other corporations engaged in the manufacture and sale of electric-light apparatus and electric-railway apparatus, and, among others, the Brush Electric Company, of Cleveland, Ohio; the Sprague Electric Railway Company, of New York; the Fort Wayne Electric Company, of Fort Wayne, Indiana; the Van Depoele Electric Light Company, of Chicago; the Short Electric Railway Company, the Schuyler Electric Light Company and the Excelsior Electric Company; that by the said combination all of the said companies passed into the ownership or control of the said General Electric
194 Company, and that the said companies, together with the said Edison General Electric Company and the said Thomson-Houston Electric Company, comprise all the manufacturers of electric-lighting apparatus and electric-railway apparatus who are doing any substantial amount of business in this country, except the Westinghouse Electric and Manufacturing Company.

21. And this defendant further avers, on information and belief, that this combination of the said two companies, Edison General Electric Company and Thomson-Houston Electric Company, and the various other corporations owned or controlled by them, in manner as aforesaid, whereby the control of the two complainant corporations passed into the hands of the General Electric Company, was effected with the consent and by the active participation of all of the said companies; and this defendant charges that the various contracts whereby the organization of the said General Electric Company was effected were contracts in restraint of trade or commerce among the several States, and with foreign nations; and that the various acts of the persons and corporations concerned in the organization of the said General Electric Company constituted an attempt or combination or conspiracy on their part to monopolize, among other things, that part of the trade or commerce among the several States of the United States, and with foreign nations, which relates to apparatus and machinery for electric lighting and electric railways; and that all such acts were, and are, unlawful; and that, by reason of such unlawful acts, the persons so conspiring or combining together are without standing in a court of equity in any matter which tends to aid them in the purpose for which such unlawful combination was made.

And this defendant avers that the injunctions asked for in the bill of complaint herein are sought for the sole purpose of aiding the said General Electric Company in its unlawful attempt to secure a monopoly of that part of the trade or commerce among the
195 several States of the United States and between the United States and foreign countries, which relates to apparatus and machinery for electric lighting.

22. And this defendant further shows unto your honors that the hereinbefore-mentioned Thomson-Houston Electric Company was

the principal party concerned in the organization of the defendant Sawyer-Man Electric Company; that the incorporation of the defendant company was effected September 11, 1886, pursuant to a resolution that had been regularly adopted by the directors of said Thomson-Houston Electric Company; that more than nine-tenths of the capital stock of the company thus created was subscribed for and taken by, or in the interest of the said Thomson-Houston Electric Company; and that the majority of the trustees or directors of the said Sawyer-Man Company were elected in the interest of the said Thomson-Houston Company. And this defendant further shows unto your honors that it was thus organized, by and with the procurement of the said Thomson-Houston Company, for the express purpose of carrying on the manufacture of incandescent lamps of the precise character of those which are complained of in the bill of complaint herein, as an infringement of letters patent No. 223,898, and with full knowledge by the said Thomson-Houston Company; that the Edison Electric Light Company, the then owner of the said patent, had begun suits against the United States Electric Lighting Company and against the Consolidated Electric Light Company, in which the said Edison Company was claiming that lamps similar to those which the said Sawyer-Man Company was organized to make, were infringements of the said patent.

And this defendant further shows unto your honors, that this action of the said Thomson-Houston Electric Company, in thus organizing the Sawyer-Man Electric Company, induced other persons to invest money in the capital stock of said corporation thus created;

196 that, immediately upon the organization of the said company, the said Thomson-Houston Electric Company assumed the active management of the company so formed, and in this manner engaged in the manufacture of incandescent lamps, like the lamps which are complained of in the bill herein, as an infringement of letters patent No. 223,898; that the manufacture of lamps thus begun by defendant, by the procurement of and under the management of, the said Thomson-Houston Electric Company has been continued uninterruptedly down to the present time; and that the practical management of the said business of manufacturing these lamps remained in the hands of the said Thomson-Houston Electric Company down to a late date in the year 1888, when the said Thomson-Houston Company, for a good and valuable consideration, sold out its interest in the stock of the said Sawyer-Man Electric Company to the Westinghouse Electric Company, mentioned in the bill of complaint herein, well knowing at the date of such sale that it was the intention of the said Westinghouse Company to continue to carry on the business of manufacturing incandescent lamps through the medium of the said Sawyer-Man Electric Company, in like manner as the said Thomson-Houston Company had been carrying on the said business theretofore, and such sale being made for the express purpose of enabling the said Westinghouse Company to put such intention into practical operation.

By virtue of the premises, this defendant submits unto your honors that the complainant companies, both of which practically have

come under the control of the said Thomson-Houston Electric Company as hereinbefore set forth, are equitably estopped from prosecuting their application for an injunction against the said Sawyer-Man Electric Company, to restrain it from the continued manufacture of that class of lamps which originally it was the intention of the said Thomson-Houston Company that it should manufacture, and for the manufacture of which it was expressly created by the said Thomson-Houston Company.

197 23. And this defendant further shows unto your honors, upon information and belief, that on or about the first day of December, 1888, a certain agreement was made between the said Thomson-Houson Electric Company, and the Consolidated Electric Light Company and the Westinghouse Electric Company hereinbefore referred to, and the defendant, by which it was provided among other things that the said Thomson-Houston Company should have a license under the Sawyer & Man patents owned by the said Consolidated Company to manufacture incandescent lamps for export and for use in this country with generating apparatus of its own manufacture only; that the defendant and the said Consolidated Company and the said Westinghouse Company agreed in said agreement not to supply any incandescent lamp for use with generating apparatus made by said Thomson-Houston Company, and reserved to themselves the exclusive right to supply such lamps for use with generating apparatus made by other manufacturers; that the said agreement is still in full force, and may, by its terms, be continued, at the option of the Thomson-Houston Company, until the 12th day of May, 1902, and that the said General Electric Company, in pursuance of its plan, and attempt to obtain a monopoly of the manufacture and sale of electric-lighting apparatus, is taking advantage of the said agreement to exclude the defendant and the Consolidated Company and the Westinghouse Company from supplying any lamps for use with Thomson-Houston generating apparatus, and is seeking also to extend the application of the said agreement by inducing those owning and operating generating apparatus of other manufacture to discard it and purchase Thomson-Houston generating apparatus by intimidation and threats that it will, in case it obtains a monopoly of the manufacture and sale of incandescent lamps under the patent in suit, refuse to sell any incandescent lamps for use with any generating apparatus except that made by the companies controlled by it; and that the said General Electric Company is at the same time seeking, by conducting this

198 suit in the name of the complainants herein, but really in its own interest, to exclude the defendant and the said Consolidated Company and the said Westinghouse Company from the benefits secured to them under the said agreement, which acts and doings this defendant doth aver are contrary to equity and good conscience, and deprive these complainants of any right to equitable relief in this honorable court.

And now this defendant, having fully answered all and singular those parts of the bill of complaint which it is material and necessary for it to answer, denies all matters and things in said bill al-

leged which are not hereinbefore specially answered unto, and it prays the same benefit of the several matters and things hereinbefore alleged and set forth as if by reason thereof it had demurred or had pleaded to the said bill.

And now this defendant prays to be hence dismissed with its reasonable costs and charges herein most wrongfully sustained.

KERR & CURTIS,
Solicitors for Def't.

EDMUND WETMORE, *Of Counsel.*

STATE OF NEW YORK, }
City and County of New York, } *ss:*

G. W. Hebard, being duly sworn, deposes and says that he is president of The Sawyer-Man Electric Company, the defendant in the suit above named; that he has read the foregoing answer and knows the contents thereof, and that the same is true of his
199 own knowledge, except as to the matters and things therein alleged to be stated on information and belief, and as to all those he believes it to be true.

(Signed) G. W. HEBARD.

Subscribed and sworn to before me this 18th day of November, 1892.

L. C. CARUANA,
[SEAL.] *Notary Public, Kings Co.*

Certificate filed, New York Co.

(Endorsed:) U. S. circuit court. Filed Nov. 19, 1892. John A. Shields, clerk.

200 United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY. } In Equity.

STATE OF NEW YORK, }
City and County of New York, } *ss:*

Hugh R. Garden, being duly sworn, deposes and says:

I was the president of the Consolidated Electric Light Company for several years and until January, 1892. I have been actively connected with said company continuously since its organization in September, 1882, and am familiar with its affairs. I am also familiar with the affairs of The Sawyer-Man Electric Company, the defendant herein, from the time when it was first organized.

The Consolidated Company was organized in September, 1882, for the purpose of buying and working the patents and inventions previously owned by the American Electric Light Company and by

the Eastern Electric Manufacturing Company, the latter company being at the time the owner of the Sawyer-Man patents on incandescent lighting. The capital of the Consolidated Company, at the time of its organization, was fixed at $1,200,000; and during the
201 years 1882, 1883 and 1884, and prior to the bringing of the present suit, there had been paid in to the said company in cash and expended in the building up of its business not less than $350,000, and at least three-fourths of this was expended on the incandescent branch of its business. Moreover, this affiant is informed and believes that prior to the sale to the Consolidated Company the Eastern Electric Manufacturing Company and the American Company had spent large sums of money in the development of the system of incandescent electric lighting, and as early as the winter of 1881–'2 the American Company had exhibited a plant of incandescent lamps in the United States Capitol at Washington.

As early as the year 1883 The Consolidated Company, the defendant, had installed various plants, among them several conspicuous plan-s in the city of New York, viz: That in the United Bank building, corner of Broadway and Wall street; that in Jackson's factory in Union square; that of the New York Steam-heating Company; and that of the New York Wood-turning Company. Also, in the year 1884, said company succeeded in securing the contract for lighting the Mutual Life Insurance building, after a sharp competition therefor with the Edison Electric Light Company. The company received fresh accessions of capital after the making of this contract, and, in fact, a very considerable part of the moneys paid in to the company were received after this date. It is my opinion that the parties investing at this time were largely induced thereto by the fact that the company was able to secure such valuable contract in competition with the Edison Company, and by the further fact that in the interference between Mr. Edison and Messrs. Sawyer & Man, then pending in the Patent Office, on what was regarded by the parties as a fundamental issue in relation to incandescent lighting, priority of invention had been awarded to Sawyer & Man.

The interference referred to was declared between an appli-
202 cation of Mr. Edison, filed December 11, 1879, and an application of Sawyer & Man, filed January 9, 1880. Technically the interference related to "an incandescent conductor for an electric lamp formed of carbonized paper;" but, in the taking of the proofs, the parties regarded the issue as in effect one for an incandescent lamp conductor broadly, when formed of fibrous or textile material; and it was considered that the issue was a fundamental one. Referring to it in his testimony in another interference known as the Swan-Edison-Maxim interference, Mr. Edison says that, when he prepared his preliminary statement in the interference with Sawyer & Man, "my mind was full of the fact that they (Sawyer & Man) were endeavoring to deprive me of the use of a filament of carbon, and paper in my mind was then a secondary consideration."

This interference was prosecuted on the Sawyer-Man side by the Consolidated Electric Light Company, and a large amount of money was expended in the contest. The examiner awarded priority of

invention to Sawyer & Man in January, 1882, and again (this case having been reopened) in June, 1883; and this decision was affirmed by the Commissioner on appeal in October, 1883. The decision thus rendered has never been disturbed.

Notwithstanding the decisions rendered in this interference, and notwithstanding the commercial operations of the Consolidated Company, some of them in direct competition with the Edison Company, no suit was brought against the former, under any of the many Edison patents, until May, 1885, when a bill was filed by the Edison Electric Light Company against the Consolidated Company on the patent now in suit among others. Before such date, however, and as early as May and June of the year 1883, the Consolidated Company had brought suits for infringement under some of its patents against the Edison Company and its customers.

203 Not only had the Edison Company not brought any suits against the Consolidated Company, but, so far as I know and believe, it had not even notified the Consolidated Company that its lamps were infringements of any patents owned or controlled by the Edison Company, and especially of patent No. 223,898. It is true that the Edison Company had issued two printed circulars in the year 1882, copies of which, as I understand it, were sent to the Consolidated Company, in which circulars the Edison Company announced itself as the owner of a very large number of patents therein enumerated—some 160—and followed such list of patents with the declaration that "if" any parties entering upon the business of electric lighting by incandescent lamps shall "infringe in any particular whatever any of the patents hereinbefore noted, or any patent that may hereafter be owned by this company, this company will proceed against every such party for the full legal enforcement of each and every patent infringed." No pretense was made in these printed notices that the lamps of the Consolidated Company or the lamps of the United States Electric Lighting Company were regarded as infringements of any of the Edison patents, and particularly these notices did not specify patent No. 223,898, nor any other specific patent or patents, as patents that would be infringed by the type of lamp that the U. S. Company or the Consolidated Company were manufacturing.

So far as I know and believe, these were the only notices regarding the Edison patents that were served upon the Consolidated Company prior to the bringing of the present suit. It is true that, as time went on, the officers of the Consolidated Company became aware of a rumor to the general effect that the Edison Company, as the owner of several hundred patents relating to dynamos and regulators and modes of distributing current as well as to lamps,

204 was pretending that it had the power by means of such patents to control the whole field of incandescent lighting; but the Consolidated Company, so far as I know and believe, never received any definite information until the bringing of the suit above referred to in May, 1885, that in fact, the Edison Company made any such claim, and certainly no information as to the particular patents under which such claim could be made. On the contrary,

the officers of the Consolidated Company had every reason to believe that the Edison Company did not regard any of its patents, and especially patent No. 223,898, as controlling or as infringed by the Consolidated Company.

In the fall of 1884 the Consolidated Company entered into negotiations with various gentlemen in Philadelphia, Boston and elsewhere for additional amounts of money with which to carry on its established manufacturing work. These negotiations resulted, in the early spring of 1885, in agreements under which the company secured to be paid into its treasury the sum of $200,000.

Before entering upon this extension of its business the company and these new investors had spent a large amount of money in investigating the whole prior state of the art and the character of all existing American patents, and they were advised by the experts employed in their investigation that they could safely proceed with their work of installing incandescent lighting plants.

This view of the matter, so far as it concerns the plaintiff herein, was, in our opinion, strongly supported by the fact that the Edison Company had not brought any suits under its patents, either against our own company, which had begun its installations in 1883, or against the United States Company, which had been installing incandescent plants ever since the fall of 1880, and had erected many important plants in various parts of the country. I have no doubt
that this failure of the Edison Company to put any of its
205 patents in suit had great weight with the persons who, in
1883, 1884 and 1885, contributed money to the development of the Consolidated Company's business.

Immediately upon the investment of this fresh capital the business of the company increased rapidly, so much so that in 1887 the output of lamps, under the auspices of the company, had risen at times as high as 1,000 lamps per day.

The Sawyer-Man Company was organized on September 11, 1886, as the result of certain negotiations between the Consolidated Company and the Thomson-Houston Electric Company. It was controlled by the Thomson-Houston Company, a majority of the trustees being elected in the interest of said Thomson-Houston Company. More than nine-tenths of its capital stock was subscribed for and taken by, or in the interest of, the Thomson-Houston Company. The contract and license from the Consolidated Company to the Sawyer-Man Company hereinafter mentioned, and an agreement between the Sawyer-Man Company and the Thomson-Houston Company defining their relation, were prepared and reported by a committee composed of the counsel of the Thomson-Houston Company, who were directors of the Sawyer-Man Company in the interest of the Thomson-Houston Company. On August 23, 1887, an agreement was made between the Consolidated Company and the stockholders of the Sawyer-Man Company, which provided for the sale of all the Sawyer-Man stock to the Consolidated Company for an equal amount, at par, of the bonds of the Consolidated Company, dated October 1, 1887, at five years, and also an equal amount, at par, of the stock of the Consolidated

Company. This agreement was signed by the Thomson-Houston Company and all of the stockholders who held stock in the interest of that company, and their signatures were obtained by Mr. Coffin.

206 The Sawyer-Man stock was duly received by the Consolidated Company and the Consolidated stock and bonds issued therefor. All of this issue of bonds (except $5,000 which have not yet been presented for payment) has been paid by the Consolidated Company, the last amount, $42,500, having been paid to the Thomson-Houston Company about October 1, 1892. On December 7, 1888, all of the Consolidated stock, about $120,000, acquired as above by or in the interest of the Thomson-Houston Company, was sold by the Thomson-Houston Company to the Westinghouse Electric Company.

The Sawyer-Man Company was organized originally by the Thomson-Houston Co., for the special purpose of manufacturing incandescent lamps, substantially the same in construction as those now made by the said company, under the Sawyer-Man patents then owned by the Consolidated Company; and on October 29, 1886, the Consolidated Company made and delivered to said Sawyer-Man Company "a full and exclusive license" under its principal patents relating to the manufacture of lamps, subject only to two licenses previously granted by the defendant to others. At the same time the Consolidated Company sold and assigned to the Sawyer-Man Company all its then unfinished business, the latter company, however, agreeing that where the Consolidated Company had actually made contracts for installing plants the Sawyer-Man Company would complete said contracts at costs.

Contemporaneously with the making of this license, the Sawyer-Man Company leased the factory plant of the Consolidated Company for twenty-five years, bought its stock of material and apparatus on hand, and assumed the lease and rental of the Consolidated Company's factory; and thereupon said Sawyer-Man Company entered upon the manufacture and sale of lamps as the successor of the Consolidated Company in the said lamp business,

207 rendering stated returns and paying the royalties agreed upon as the consideration of the license. This business is carried on in its own name, and on its own account, the Consolidated Company reserving to itself in the license contract the right of access to the books of the Sawyer-Man Company in order to verify the returns made.

In the latter part of 1887 the Consolidated Company, with the consent of the Thomson-Houston Co., bought from the Westinghouse Company its factory plant for the manufacture of lamps, together with its various lamp patents, and all outstanding contracts for the sale of lamps; and it also bought "the entire business, rights, interests, good will and assets of the lamp departments of the said Westinghouse Company," and agreed to "supply all purchasers, past and future, of incandescent electric-light apparatus from the Westinghouse Company, with incandescent electric lamps at its regular established rates, subject, however, to a reduction equal to any discount or concession that it may at any time accord the customer

of any other company." The Consolidated Company did not, however, resume the manufacture of lamps, discontinued the previous year, but the manufacture and sale was continued by the defendant under the provisions of its former license, and the said agreement to supply incandescent lamps to purchasers of Westinghouse apparatus was assumed by the defendant and has been carried out by it down to the present time.

Although, as I have already stated, a suit was begun in the year 1885 against the Consolidated Company on the Edison patent now in suit, I am advised that it has never been prosecuted. The defendant filed a plea, going to the jurisdiction of the court; and this plea, as I am informed and believe, has never been brought up for argument. This delay, as I understand, has been entirely voluntary on the part of the complainant, and I know of no un-
208 derstanding or agreement between the counsel for the parties justifying this delay, or consenting that it continue without prejudice.

HUGH R. GARDEN.

Subscribed and sworn to before me this 7th day of November, 1892.

C. C. VANSANTEN,
[SEAL.] *Notary Public, Kings County.*

Cert. filed in N. Y. Co.

(Endorsed:) U. S. circuit court. Filed Nov. 19, 1892. John A. Shields, clerk.

United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY. } In Equity.

STATE OF NEW YORK, *City and County of New York,* } *ss:*

Henry C. Davis, being duly affirmed, deposes and says:

In the fall of 1884 I was associated with a number of gentlemen in Philadelphia, Boston and elsewhere, in an investigation into the merits of electric lighting, and particularly that branch which relates to the manufacture and sale of incandescent lamps, our object being to make an investment in that business if we found the prospects sufficiently encouraging. Our attention was specially directed to the business that had already been established by the Con-
209 solidated Electric Light Company under the Sawyer-Man patent which that company owned.

Several months were occupied by us in considering the question whether the proposed investment in the said company could be judicially made, and this investigation involved an inquiry into the

whole line of patents owned by the said Consolidated Company, as well as the other companies that were at the time engaged in incandescent lighting, notably the United States Electric Lighting Company and the Edison Electric Light Company. In this investigation we were constantly in consultation with experts and lawyers called to advise in the premises.

As the result of these investigations, we came to the conclusion, early in the year 1885, that the proposed investment in the Consolidated Electric Light Company would be a wise one, and accordingly a contract was entered into with said company under which $200,000 fresh capital was paid into its treasury.

At the time this contract was made no suits for infringement had been brought against the said company under any of the patents owned by the other lighting companies. It was well known to the gentlemen making this investment, at the time of conducting their preliminary investigation, that the Edison Company was the owner of a large number of patents relating to incandescent lighting. These patents had been considered in their inquiries, and the conclusion had been reached that the Sawyer-Man lamps made by the Consolidated Company would be in no respect tributary to the Edison patents. This belief was induced in part by the circumstances that the Edison Company had not brought any suits under its patents against the Consolidated Company, nor, so far as we could learn, against any other manufacturer of lamps. We were well aware that the United States Electric Lighting Company had gone very extensively into the business of incandescent lighting, and had not been interfered with by the Edison Company; and we assumed
210 that this was because the Edison Company did not consider its patents valid as against the United States Company's lamps.

Another fact having much weight in inducing these gentlemen to make the investment spoken of was the fact that for several years a contest had been going on in the Patent Office between the Edison Company and the Consolidated Company in the form of an interference between an application of Mr. Edison and an application by Sawyer and Man for what was regarded as a fundamental claim. In this contest priority of invention had been awarded to Sawyer and Man, and it was believed that the patent which was about to issue to the Consolidated Company on that judgment would be a controlling patent, as covering the use in an incandescent lamp of a carbon made of a fibrous or textile material. In addition to this the Consolidated Company already owned a patent for the hydrocarbon treatment of carbons in making burners for incandescent lamps, this being a process which at the time was generally regarded as essential to the making of a durable lamp.

I became officially connected with the Consolidated Electric Light Company as general manager and treasurer early in 1885, and remained connected with it until the latter part of 1889; and during that time various other companies have taken licenses under the Sawyer-Man patents owned by said Consolidated Company. Among such license-s may be named the United States Electric Lighting

Company, the Westinghouse Electric Co., the Thomson-Houston Electric Co. and the Mather Electric Light Co.

HENRY C. DAVIS.

Subscribed and affirmed to before me this 7th day of November, 1892.

BENJAMIN BARKER, JR.,
Notary Public, N. Y. Co.

(Endorsed:) U. S. circuit court. Filed Nov. 19, 1892. John A. Shields, clerk.

211 United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

STATE OF NEW YORK, }
City and County of New York, } *ss:*

George W. Hebard, being duly sworn, deposes and says:

I am president of the United States Electric Lighting Company, the defendant in equity suit No. 3445, brought against said company in this court by the present complainant, and have held that office since November, 1881. I am also the president of the Sawyer-Man Electric Company, the defendant herein, and a director in the Consolidated Electric Light Company.

I am familiar with the manner in which the general business of electric lighting has been conducted in this country since its commercial inception. The methods used in conducting said business have been peculiar and in many respects wholly unlike those adopted in any other line of business with which I am acquainted.

Each of the various companies engaged in the manufacture and sale of electric-lighting apparatus has, as a rule, manufactured all the different pieces of electrical apparatus, such as dynamo machines, indicators, regulators, meters, electric lamps, switches, cut-outs, lamp sockets, fixtures and fittings, which are necessary for making up a complete outfit or "plant," as it is termed; these different parts of the apparatus have usually been constructed with direct reference to use with each other, and, as a rule, these
212 parts have not been so constructed as to be adapted for use in the systems of apparatus made by other manufacturers.

For the purpose of public lighting from central stations, local companies, known as "illuminating companies," have been organized in various cities and towns, which have purchased outfits, or "plants," from one or the other of the manufacturing companies, and the central stations of such illuminating companies have, as a rule, been equipped wholly with the electrical apparatus made by some one manufacturing company. In many cities and towns there

are competing illuminating companies using the system of different manufacturing companies, as, for instance, in many of the more important cities and towns there is one illuminating company having one or more stations equipped with the Edison system of apparatus, another having one or more stations equipped with the Westinghouse system, manufactured by the Westinghouse Company, and another having one or more stations equipped with the Thomson-Houston or the Fort Wayne system, manufactured by the Thomson-Houston Company, all supplying incandescent lights in competition with each other.

In an incandescent-lighting plant, whether for an isolated building or for central-station lighting, the lamps themselves constitute but a small part of the entire apparatus.

Incandescent lamps of 16-candle power, the usual standard size, have been sold by different companies during the past two years at from about thirty to fifty cents each; and the dynamos, converters, regulators, meters and other electrical apparatus and appliances usually manufactured and sold by the electric manufacturing companies now sell on the average at the rate of about five dollars for each lamp the plant is adapted to run. The prices charged in the past for this apparatus have been very much higher than this. From my experience in the business, I should say that in the installation of central stations the cost of buildings, power plant, circuits, pole lines, &c., will bring the entire cost of the plant up to twenty dollars or more for each lamp, depending somewhat
213 upon the size of the plant and other conditions. In the case, for instance, of a station having a capacity for operating one thousand 16-candle-power incandescent lamps, and costing $20,000 for its installation, the lamps themselves would cost from $300 to $500, the dynamos, converters, regulators, meters and other electrical apparatus included in the generating plant furnished by the electric manufacturing companies, would cost about $5,000, and the remainder of the total cost would be represented by the station building, power plant, circuits, pole lines, etc. I should accordingly say that the lamps themselves would on the average represent from six to ten per cent. of the entire cost of the electrical apparatus furnished by the electric manufacturing companies, and between two and three per cent of the entire cost of the plant.

The United States Electric Lighting Company commenced the manufacture of incandescent-lighting apparatus, including incandescent lamps, in the summer of 1880, and continued such manufacture down to a recent time, and has sold and installed a large number of incandescent-lighting plants, both for isolated lighting and for central-station lighting; the entire number of plants being about 1,050, with a lamp capacity of about 350,000 lamps. About three hundred of these plants were installed before the first suit on the Edison patent now in suit was brought in 1885.

Other manufacturing companies, besides the complainants herein and the said United States Company have put in a large number of plants, both for central-station lighting and for isolated lighting with incandescent lamps. Among such other companies are the

Consolidated Company, the predecessor of the defendant herein, the Thomson-Houston Company, the Fort Wayne Electric Light Company and the Westinghouse Electric and Manufacturing Company. I am familiar with the business done by the Westinghouse Electric and Manufacturing Company, one of the said companies having, for the past two years been an officer of that company, and I
214 find upon an examination of its records that the aggregate lamp capacity of the incandescent-lighting plants installed with generating apparatus supplied by it up to the present time is over 950,000 lamps, making, with the lamps of the United States Company already referred to, a total of over 1,300,000 lamps, and representing an aggregate investment by the purchasers of approximately twenty-five million dollars ($25,000,000).

The lamps used as a part of these plants, although but a small part of them, as regards cost, are absolutely necessary for the continued operation of the plants, and the lamps have but a limited lifetime; the average life of a lamp being, roughly stated, one year. In order that the operation of the plant may be kept up, it is necessary that as fast as lamps are worn out they shall be replaced with new ones, and unless lamps can be procured whenever needed, the entire plant will be rendered useless, and the greater part of the investment represented by it will be a total loss.

The apparatus made by different manufacturers, and in many cases different styles of apparatus made by the same manufacturer, require different grades and styles of lamps, and, in order that the apparatus shall work in a practical way, lamps must be employed of the precise kind for which the apparatus is constructed. Quite a number of the different kinds of lamps used with apparatus of other manufacturers are not made at all by the complainants; and it is specially true in regard to the "alternating-current" plants supplied with fifty-volt lamps, that complainants do not manufacture a lamp that is well adapted for use therewith.

This "alternating-current" system, since its introduction in this country by the Westinghouse Company in 1886, has entered very widely into use, much more so than any other system; and from my knowledge of the subject I have no doubt that to-day more fifty-volt lamps, such as are used in that system, are required for renewals than are required of any other grade of lamps.

The Edison General Company has recently introduced a
215 fifty-volt lamp, and sought in numerous instances to substitute this lamp for other makes of fifty-volt lamps in central-station lighting, but with very little success. Their failure in this regard I believe to be due to the fact that, to make a serviceable lamp of this grade (which is one of quite low resistance), the process of hydrocarbon treatment is essential; but this process the Edison Company cannot use, since it is covered broadly by patents owned by the United States Company, especially the patents of Mr. Maxim covering such hydrocarbon treatment in an attenuated gas and the use of such treatment for standardizing resistance and illuminating power.

The requirements of very high resistance lamps, such as are used

on the 100 or 110-volt circuits of complainants' plants, and of comparatively low-resistance lamps, such as are used on the 50-volt circuits of the alternating system, are in many respects quite different. As has been repeatedly stated by Mr. Edison, the Edison lamps are made with carbons of high specific resistance produced by carbonization without subsequent treatment, while the lamps made by the United States Company, the Sawyer-Man Company and other companies making lamps under the patents of the United States Company make use of carbons treated subsequent to carbonization by the said hydrocarbon process. The Edison kind of carbon appears to be peculiarly unsuitable for 50-volt lamps, while the carbons treated by the hydrocarbon process have been found by experience to be peculiarly well suited for such lamps.

In addition to this, as above stated, there are many lamps of various kinds and grades required for different plants which are not made by the complainants at all, and which would require considerable time and experience to manufacture properly.

A very large proportion of the incandescent lamps to which I have referred as having been installed by companies other than the complainants are used in the "alternating-current" system of
216 distribution for lighting from central stations in which the light is supplied to the public and to private consumers as gas is supplied by a gas company; and if the operations of such central stations should be stopped or seriously interfered with, through inability on the part of such companies to get proper lamps for renewals, — as well as in disastrous pecuniary loss to the local lighting companies. These companies also give employment to a large number of men, who would be thrown out of employment if the supply of lamps for such companies were cut off.

The defendant is now supplying incandescent lamps in large quantities to the purchasers and users of generating apparatus manufactured by the Westinghouse Company and the United States Company for use with such apparatus. The users of such apparatus, including, as I have already stated, a large number of central stations, are at present dependent mainly upon the Sawyer-Man factory for their supply of lamps for renewals, and the cutting off of such supply of lamps would result in great hardship to the owners of the plants, and great inconvenience to the public supplied by them with light.

The complainants, as stated in the affidavit of Mr. Herrick herein, have a single lamp factory, situated at Harrison, New Jersey, and I believe it would be extremely dangerous for the lighting business of the country to make the entire supply of lamps dependent upon any one factory. The danger of fire in such factories is great. The factory of the United States Company was partially burned out some four or five years ago, and we found it impossible to get it rebuilt and in running order again so as to supply its normal output of lamps until some six months after the occurrence of the fire. In the meantime the users of the United States Company's plants suffered great inconvenience from their inability to get proper lamps for working with their apparatus, although other manufacturers at-

tempted to supply them. With the present greatly increased
217 magnitude of the business, if the manufacture of lamps were confined to a single factory, a like accident would entail an almost incalculable loss to central-station companies and a most serious inconvenience to consumers supplied by them, both public and private.

My attention has been called to the statement made in the affidavit of Mr. Herrick herein to the effect that the capacity of the said factory of the Edison General Electric Company is sufficient to supply all the demands of the trade for incandescent lamps of all kinds under reasonable conditions as to time of delivery, and, while this statement may be true as to the tools and machinery owned by said company, I believe, from my general knowledge of the business and my experience in the manufacture of incandescent lamps, that it would be practically impossible to secure immediately the additional skilled workmen that would be required for such an increase in the daily output as would be required if the said Edison factory were called upon to supply at once the trade now supplied by the Sawyer-Man Company, and to train such workmen properly in the peculiar processes used in the said Edison factory. It is my opinion, based on my experience in similar cases, that this would require at least from thirty to sixty days, even assuming the equipment of the factory in tools and machinery to be sufficient for the purpose, and that, even assuming the complainants to have the right and to be willing to supply all the customers now supplied by the defendant, an immediate injunction against the defendant would result in great delay in supplying such customers, and very great inconvenience to the public. This is especially true at this season of the year, when the demand for lamps is much heavier than at other seasons.

I observe, moreover, that Mr. Herrick does not state in his affidavit that the complainants are willing to supply incandescent lamps to users of incandescent-lighting apparatus, or to the public generally, and I am led to believe by various matters which
218 have been brought to my attention, and especially by the reports which have been made by the agents and salesmen of the Westinghouse Company and users of its apparatus as to the business policy now being pursued by the General Electric Company, which owns and controls the complainants, that, whatever may be the fact as to the ability of the complainants to supply the whole trade, they will not, in case an injunction is granted against the Sawyer-Man Company, supply incandescent lamps to users of Westinghouse and United States generating apparatus, except upon conditions as to exchange of generating apparatus which will involve great loss and inconvenience to such users, and that the complainants will also refuse to supply incandescent lamps to such users in various of the principal cities and towns of the country, on the ground that they have entered into contracts with other parties which prohibit them from doing so.

Besides the capital invested in the local electric-lighting plants, as above set forth, the capital invested in the manufacturing of in-

candescent-light apparatus, outside of the Edison interests and the interests of the General Electric Company, is very large, amounting to several millions of dollars, and the number of hands employed in said business is also very large, aggregating several thousand. If an assured supply of proper lamps for future plants were cut off, the said capital would be substantially a total loss, and the men so employed would be thrown out of work.

By far the greater part of the business of these companies consists in the manufacture of apparatus of the "alternating-current" system, which has never been manufactured by the complainants, and which they could not supply without infringing the patents of the Westinghouse Company, which I am advised cover said system broadly; and the "alternating system" has a very large field which cannot be reached by the complainant's "direct-current" system.

219 I have no doubt that the investment of substantially all this capital and the existence of substantially all the incandescent-lighting business of companies other than the complainants has resulted mainly and directly from the delay of the Edison Company in bringing and prosecuting any suit on the Edison lamp patent. For several years subsequent to 1880 the Edison Company and the United States Company were the only manufacturers of incandescent-lighting apparatus in this country doing any considerable commercial business.

If suits had been brought promptly in 1880 when the Edison Company first had knowledge that other companies were manufacturing and selling incandescent lamps, and had been prosecuted to a final hearing with reasonable diligence, the cash investment in this branch of business would have been very small. I do not believe that the United States Company, under such circumstances, would have invested more than $50,000.

The principal business of the United States Company in 1880, and prior thereto, was manufacturing apparatus for arc lighting. When it entered the business of manufacturing incandescent-lighting apparatus, it did so in good faith, under advice of its counsel that the apparatus it proposed to manufacture did not infringe any valid patents held by other companies, including the complainants herein. It soon had brought to its attention, however, the general claims made by the Edison Company that no incandescent-lighting apparatus could be made without infringing some of its patents, and the officers and directors of the United States Company, who were also its principal stockholders, assumed that, if the Edison Company had any claims against the company's apparatus in which it had confidence, it would at once commence suit and have the matter determined by the court. No such suit was brought, however, and the officers and directors of said company became convinced, as year after year passed without the institution of any suit, that the Edison Company's threats in regard to patents were

220 made merely for the purpose of influencing business and without the intention of bringing any such suits, and thus they invested more and more capital in the incandescent-lighting

branch of their business, which increased rapidly and had become the principal branch of their business before any suit was brought by the Edison Company.

At the date when the first suit was brought the entire capital invested in the United States Company's business had reached a total of more than two and a half millions of dollars ($2,500,000), and fully three-fourths of its business related to incandescent lighting. If suit had been brought against said company in 1880, or at any time during the early development of said company's incandescent-lighting business, I feel sure, from my acquaintance with the directors and stockholders who furnished the money for developing said business, that they would have decided not to extend that branch of the business materially until a decision in such suit should have been reached.

I am advised by defendant's counsel that if the suit against the United States Company had been brought promptly and prosecuted with reasonable diligence, a decision at final hearing could have been reached before the date at which the predecessor of defendant herein, the Consolidated Company, was organized, and long before the organization of the Sawyer-Man Company, the defendant, and I am informed, and believe it to be true, that neither the last-named companies, nor any other of the electric-lighting companies, would have gone into the business of incandescent lighting if the Edison Company had thus promptly prosecuted its claims under the patent now in suit to a successful issue.

The existence of the United States Electric Lighting Company, and its operations in the field of incandescent electric lighting during the years from 1880 to 1885, were perfectly known to the officers of the Edison Electric Light Company. We were constantly meeting the Edison Company in competition for prominent
221 electric-lighting contracts, and very often prevailed in such competition. Among the contracts thus obtained by us in competition with the Edison Company may be named the post-office building in the city of New York, the Pennsylvania ferry-boats on the North river, the capitol at Albany, and the post offices at Philadelphia, Chicago and St. Louis.

Further evidence of the competition between the two companies in the early years of their work is seen in the report of lamps made and sold by them. The number of incandescent lamps sold by the Edison Company during the year 1881 (as appears by the deposition of Mr. Heeley, book-keeper of said company, given in the suit against the U. S. Company) was 34,597, while the number of lamps sold by the United States Company during the year ending March 31st, 1882, was 36,437. In addition to the capital invested by the United States Company in its manufacturing plant, it also expended large sums in the purchase of patents relating to incandescent lighting. The number of such patents bought by the company prior to the year 1885 was 131.

Notwithstanding this constant competition between the United States Company and the Edison Company during the years above named, the Edison Company, so far as I know and believe, never

gave the United States Company notice that it was infringing any of its patents by the manufacture of incandescent lamps until May, 1885, when it commenced against the United States Company and its customers some thirty suits involving fifteen different patents. It is true that in the year 1882 the Edison Company sent to the United States Company by mail, at two different dates, two printed circulars, which circulars professed to contain a list of the patents owned by the said Edison Company; but the said circulars contained no suggestion that the United States Company was infringing any of the said patents. The only statement in said circulars in any way bearing upon said subject was contained in the following paragraphs:

222 "This company (the Edison Electric Light Company) has been led to understand that other parties are now proposing to engage in the business of incandescent electric lighting, to manufacture and put upon the market incandescent lamps which, in themselves, or in their manufacture, or in the arrangements for generation, regulation, distribution, measurement and utilization (either or all) connected therewith, will infringe certain features covered by patents noted in the list herewith given.

"Now, therefore, this company gives notice to any and all such parties and to any and all parties who may hereafter propose to enter upon the business of electric lighting by means of incandescent lamps, or furnishing electric power or lights, that if, in so doing, they infringe, in any particular whatever, any of the patents hereinbefore noted, or any patent that may be hereafter owned by this company, this company will proceed against every such party for the full legal enforcement of each and every patent infringed."

The license agreement between the Consolidated Company and the Thomson-Houston Company, of which a copy is annexed to the affidavit of Mr. Westinghouse herein, is still in force, and the Thomson-Houston Company has, during the present month, made a return of sales and royalties under the said agreement. Since the formation of the General Electric Company, the Thomson-Houston Company had treated the said agreement as covering the Edison General Electric Company by including, in its returns of sales made under said license, sales of lamps made by it to the said Edison General Electric Company.

My attention has been called to the statements made in the affidavit of Walker K. Griffin forming a part of complainants' motion papers herein as to alleged statements made by me to the effect that it would be impossible for the Edison Company to prove any

223 damages whatsoever, and that there had been no profit made by any one in incandescent electric lighting until very recently. Mr. Griffin is entirely in error in attributing any such statements to me. I did state that I believed that very little, if any, profit was made by any one in the early years of the business of incandescent lighting, but it is my belief that the business has been profitable for several years past, and I made no statements to the contrary of this to Mr. Griffin. I do not remember having discussed the matter of damages at all with Mr. Griffin, and I certainly

did not make the statement attributed to me in this affidavit; I believe that his error in this regard is due to his confusing conversations with me with conversations of rather a jocular nature which took place in my presence between him and Gen. Duncan, the counsel of the United States Company, in regard to various newspaper announcements of the enormous amounts the Edison Company would recover as damages, and the statements of Gen. Duncan in regard to the difficulty of proving any such erroneous amounts.

The Sawyer-Man Company, the defendant, has a considerable stock of incandescent lamps on hand, many of which are of voltages and styles for which the demand is slow, and which it will take a considerable time to dispose of. I believe it will be for the advantage of both parties to this suit to permit the defendant to sell these lamps in any event, and the defendant is able and willing to furnish adequate security both to cover the sale of such lamps and to cover the continuation of its manufacturing business upon any terms as to royalties which the court may deem proper in the premises.

If the defendant should discontinue the manufacture of lamps and close its factory it would require at least several months to obtain the necessary workmen and get into condition to turn out lamps in any quantity commercially, even if the factory were left standing with its full equipment of tools and machinery, be-
224 cause if the present force of skilled workmen necessary for the manufacture of the Sawyer-Man lamp and who have acquired the skill and knowledge requisite for such manufacture by years of service with the company should be dispersed, it would be impossible, even after a short interval of time, to reassemble a force sufficiently competent for the purpose under at least several months, and to keep the factory and equipment ready to meet such a contingency would entail very heavy expense.

G. W. HEBARD.

Subscribed and sworn to before me this 9th day of November, 1892.

BENJAMIN BARKER, JR,
Notary Public, N. Y. Co.

(Endorsed:) U. S. circuit court. Filed Nov. 19, 1892. John A. Shields, clerk.

The United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT CO. and EDISON GENERAL ELECTRIC CO.
vs.
SAWYER-MAN ELECTRIC CO.
} In Equity.

STATE OF NEW YORK, *City and County of New York,* } *ss:*

George Westinghouse, Jr., being duly sworn, deposes and says: I reside at Pittsburgh, Pennsylvania, and am president of the

Westinghouse Electric and Manufacturing Company. I have been actively engaged in the business of electric lighting since the
225 organization of the Westinghouse Electric Company, the predecessor of the Westinghouse Electric and Manufacturing Company, some six years ago, and have been familiar with said business as conducted by the said Westinghouse Companies and by their principal competitors.

It has been a matter of common knowledge among those engaged in the said business that the Edison Electric Light Company, one of the complainants herein, has for some two or three years past been owned and controlled by the Edison General Electric Company, the other complainant herein, and that during the early part of the present year, the said Edison General Electric Company became, in substance, consolidated with the Thomson-Houston Electric Company, under the name of the General Electric Company. This knowledge has been acquired from announcements published in the newspapers and in technical electrical journals, and various statements to that effect made from time to time by the officers and agents of the various corporations so consolidated, and in various circulars issued by the said Edison General Electric Company and the said General Electric Company.

I annex hereto and mark "Exhibit A," an article published in the "Electrical World" of February 19, 1892, giving a copy of the agreement of consolidation of the said Edison General Electric Company, and the said Thomson-Houston Electric Company, which, as I am informed and believe, was published by authority, or with the consent, of the managers of the said companies. Subsequently a notice, purporting to be signed by the committee mentioned in said agreement, was published in various newspapers in New York and elsewhere, to the effect that a majority of the stock of both the companies mentioned had been deposited with the said committee, and that said agreement had become operative.

I annex hereto a printed circular marked "Exhibit B," published by the New York stock exchange, which, as I am informed
226 and believe, contains a correct copy of a report made by the Edison General Electric Company to the said stock exchange under date of January 29, 1890, from which it appears that the said Edison General Company owned at that time 14,003 shares of the stock of the Edison Electric Light Company out of a total of 15,000 shares.

I also annex hereto and mark "Exhibit C," a circular published by the New York stock exchange, and which I am informed and believe contains a correct copy of a report made to the said stock exchange by the General Electric Company, under date of May 31, 1892, from which it appears that at that time the Edison General Electric Company owned "practically all the stock of the Edison Electric Light Company," and that the said General Electric Company owned 146,442 shares of the said Edison General Electric Company out of the total of 150,000 shares, and also nearly all of the stock of the Thomson-Houston Electric Company.

It is also a matter of common knowledge in the business that the

General Electric Company has assumed the direction and management of the manufacturing business of both of the said companies and the sale of their apparatus, and that its counsel has assumed the management of their legal affairs.

From various reports and circulars which have been issued subsequent to the date of the circular last mentioned, I believe it to be a fact that the said General Electric Company has since that time acquired substantially all the stock then outstanding of both the Edison General Electric Company and the Thomson-Houston Electric Company, and that neither of the complainants herein nor the Thomson-Houston Electric Company has at present any substantial or independent existence as a corporation, but that the nominal organizations of the said three corporations are maintained merely as a matter of form, and that the said General Electric Company is
227 the only real and substantial party in interest in any commercial business or litigation conducted in the name of either of the said three companies, including the above-entitled suit.

It is also matter of common knowledge among those engaged in the electric-light business, such knowledge being derived from announcements published in the press and from the statements made from time to time by officers and agents of the various companies concerned, that the said General Electric Company, through its ownership or control of the said two companies or otherwise, also owns or controls various other companies which were formerly active competitors of the Westinghouse Company in the manufacture and sale of electrical apparatus, and, among others, the Brush Electric Light Company, of Cleveland; the Sprague Electric Railway Company, of New York; the Fort Wayne Electric Company, of Fort Wayne, Indiana; the Van Depoele Electric Light Company, of Chicago; the Short Electric Railway Company, the Schuyler Electric Light Company and the Excelsior Electric Company. The companies so owned and controlled by the General Electric Company comprise nearly all the competitors of the Westinghouse Company, and those not included in that organization are for the most part companies having a small capital and doing a small amount of business. I believe, from the best information that I can obtain, that they do not in the aggregate do more than ten per cent. at the outside of the entire business of manufacturing and selling electric light and power apparatus done in this country.

The organizations of most of the various companies owned by the General Electric Company have been maintained nominally, as I am informed, and I believe that this has been done for the purpose of keeping up a show of competition before the public, and also for the purpose of avoiding the assumption of the obligations of various contracts made by the individual corporations prior to their absorption by the General Electric Company, and at the same time
228 enabling the said General Company to secure the benefit of such contracts by conducting its operations in the name of the particular corporation which made the contract. An instance of this is the contract between the Thomson-Houston Company, the

Consolidated Electric Light Company, the Westinghouse Company and the defendant, a copy of which is annexed hereto and marked "Exhibit D." The said contract is still in force, and the General Electric Company is receiving the benefits of it under the name of the Thomson-Houston Company, but is seeking, under the name of the Edison Company, to deprive the Consolidated Company and the Westinghouse Company of the benefits intended to be secured to them under the said agreement by depriving them by injunction of the right to supply Sawyer-Man lamps even for use with Westinghouse generating apparatus.

In the organization of the said General Electric Company, the control, as I am informed and believe, has been acquired by the Thomson-Houston interest, which is the dominant interest in said combination. It appears by the stock exchange circular, hereto annexed and marked "Exhibit C," that Mr. C. A. Coffin, the vice-president of the Thomson-Houston Company, is president of the General Electric Company; that Eugene Griffin, the second vice-president of the Thomson-Houston Company, is the vice-president of the General Electric Company, and that E. I. Garfield is secretary of both of said companies, and it is a matter of common knowledge in the business that Mr. Coffin and Mr. Griffin have been for some time past the real business managers of the Thomson-Houston Company and are now the real business managers of the said General Electric Company. Various officers of the Edison General Electric Company are also officers of the General Electric Company, but do not take so prominent a part in its management.

229 I have been led to believe, by reports made to me by the agents of the Westinghouse Company, and by various matters which have been brought to my attention, that the General Electric Company intends to make use, if possible, of the recent decision of the court of appeals in the suit of the Edison Electric Light Company in such a way as to injure the business of the Westinghouse Company in the manufacture and sale of dynamo machines and other electrical apparatus besides incandescent lamps, and to endeavor to obtain through its control of the Edison lamp patent, upon which the said suit was brought, a monopoly of all the apparatus used for incandescent lighting (of which the incandescent lamps themselves form only a very small part) by enjoining other manufacturers of incandescent lamps, and refusing to sell its lamps except for use with generating plant of its own manufacture.

As an illustration of this I will refer to the negotiations for the incandescent lighting of the buildings and grounds of the World's Fair, in which I took part on behalf of the Westinghouse Company. When the proposals for this contract were advertised for early in the present year, the Westinghouse Company did not put in any bid, but the Edison General Electric Company, the Thomson-Houston Company, the Brush Electric Company and the Fort Wayne Electric Company put in bids which differed somewhat in amount, but were all in the neighborhood of $1,800,000, for the incandescent lighting called for by the specifications. These were ostensibly independent competitive bids, but were all in fact in the

same interest, and it is a matter of common knowledge that this plan of putting in different bids in the names of the different companies controlled by it, so as to create an appearance of competition between them, has been quite generally followed by the general company since its organization.

There was in addition to these a much lower bid of about $450,000, put in by one Charles C. Lockstaedt, for the same work. The Lockstaedt bid was some time afterwards assigned to, and assumed
230 by, the Westinghouse Company, and the Edison Company afterwards informally reduced its bid about $600,000. But, notwithstanding the great disparity still existing in the bids, the committee having the matter in charge recommended the awarding of the contract to the Edison General Company. This action of the committee was, as I was informed at the time by different members of it, due mainly to the representations made by the agents and officers of the Edison Company that they expected a decision shortly from the appellate court which would give them a monopoly of incandescent lamps, and that they would in that event refuse to supply lamps to the Westinghouse Company, and it would, for this reason, not be able to carry out the contract. The matter was afterwards reopened and new bids called for, which were put in. The bid then put in by the Westinghouse Company, which was about $400,000, was much lower than that of either of those then put in by the companies controlled by the General Electric Company, although the bids of those companies were very greatly reduced, but there was considerable delay in making the award, and, in the meantime, as I was informed by different members of the committee having the matter in charge, a strong effort was again made by the officers and representatives of the General Company to prevent the awarding of the contract to the Westinghouse Company on the ground that it would not be able to do the work, because the General Company would have a monopoly of incandescent lamps, and would not supply them for use with Westinghouse machines. The contract was, however, finally awarded to the Westinghouse Company.

I believe this to be a fair illustration of the use which the General Electric Company is making of the decision of the court in the Edison case, and I am confirmed in this belief by many similar instances which have been reported to me by the salesmen and customers of the Westinghouse Company of attempts to influence
231 the sale of dynamos and other apparatus by threats of cutting off the supply of incandescent lamps.

I annex hereto and mark "Exhibit E," an affidavit verified by Mr. E. S. Pike for use in the pending suit of the Edison Company against The Consolidated Electric Light Company, which I believe to be in all respects true.

The advertisements of the Westinghouse Company, referred to in the affidavit of Mr. Herrick forming a part of the complainant's moving papers, were issued for the purpose of meeting the efforts which, as the officers of the company were concerned, the agents of the General Electric Company were making to induce the customers

of the Westinghouse Company to accept licenses under all the patents of the General Company and agree to purchase dynamo machines and all other electrical apparatus exclusively from the General Company for a term of years, by threats or intimations that unless such terms were acceded to their supply of incandescent lamps would be cut off as soon as the court gave the General Company a monopoly of the lamp business under the Edison patent. I annex hereto and mark "Exhibit F" a copy of an article published in the electrical journal "Electricity" for September 28, of the present year, stating the substance of forms of contract which, as I am informed by the salesmen and customers of the Westinghouse Company, and believe, have been tendered to many of the central-station companies using its apparatus with threats or intimations that unless they signed such contracts they would not be able, when the Edison lamp patent was established, to obtain any incandescent lamps for renewals.

I also annex hereto, and mark "Exhibit G," a blank form of proposal of the General Electric Company, which was, as I am informed and believe, procured from an agent of the said General Company, and is a form commonly employed by that company.

232 It is a matter of common report, and I believe it to be true, that the salesmen and agents of the General Electric Company have generally urged, and wherever possible insisted upon, the acceptance of these forms by purchasers of apparatus.

It is, according to my experience, extremely unusual, to say the least, in any line of business to exact the acceptance of a license under patent as a condition of the sale of apparatus, unless exclusive territorial rights are given under such patents, and I believe it would be in the highest degree detrimental to the interests of the public supplied with light by central-station companies, and to the central-station companies themselves, if such central-station companies were compelled to agree to purchase all their apparatus exclusively from any one manufacturing company, or, what would amount to substantially the same thing, to accept a license under all the patents of the General Electric Company, and agree not to contest their validity or scope. The said company owns or controls a very large number of patents (more than one thousand, as I am informed), and many of these have, as I am advised by the counsel of the Westinghouse Company, claims which are very vague and indefinite, and are susceptible, if not contested, of a broad enough construction to cover all forms of apparatus in use, but which, if contested, could not be maintained at all, or could be maintained only with a very narrow construction. I have been informed by various managers of central-station companies, with whom I have discussed the matter, that they would not accept such contracts or licenses from the General Company under any circumstances, unless compelled to do so for the purpose of securing incandescent lamps, and the said advertisements were intended to inform central-station companies, and users of electric-light apparatus generally, that it would not be necessary for them to accept such contracts or licenses in order to procure lamps.

233 It is true, as stated in the said advertisement, that the Westinghouse Company is preparing to furnish to its customers an incandescent lamp substantially different from the Edison lamp described and claimed in the patent in suit. This lamp has been submitted to the counsel of the Westinghouse Company, and I am advised by them that it does not infringe the Edison lamp patent in suit in this case; it has been tested in the laboratory and factory for some months as thoroughly and exhaustively as it is possible to test incandescent lamps without putting them into actual commercial use on a large scale, and I fully believe, as the result of these tests, that it is an efficient and reliable lamp, and superior to the form now in use. I have for some months past made diligent preparations for manufacturing this lamp on a sufficiently large scale to supply the requirements of the business of the Westinghouse Company, but have found that such preparations necessarily require a very considerable amount of time, because of the fact that the new form of lamp is made by machinery instead of by hand processes as in the case of the present form of lamp, and that new and special machines are required for this purpose which necessarily take a considerable amount of time for their construction. I have had to design much of this special machinery myself, and I have pushed forward its construction as rapidly as possible, especially since the recent decision of the court of appeals, but have not been able to get it completed to a sufficient extent as yet to turn out any considerable quantities of the lamps. Although unexpected delays in the construction of the said machinery have been encountered since the said advertisements were published, I still fully expect from the progress which has been made to be able by the first of December to turn out sufficient quantities of the new lamps to supply a considerable part of the users of Westinghouse apparatus, and to be able by the first of January to meet all commercial demands for such lamps, so that the manufacture of the present type of lamps may then be discontinued by the Sawyer-Man Company without
234 injury to the business of the Westinghouse Company or embarrassment to its customers. The Westinghouse Company has decided in any event to make use of lamps of the new style as fast as they can be supplied and to discontinue the use of the lamps now made by the Sawyer-Man Company as rapidly as such new lamps can be supplied to replace them.

The Westinghouse Company is a very large manufacturer of dynamo machines and other apparatus employed for incandescent lighting, but has not for some years past manufactured incandescent lamps itself (except experimentally), the incandescent lamps *such* with its apparatus having been supplied by the Sawyer-Man Electric Company, under an agreement between the two companies to that effect, and at present the Westinghouse Company and its customers are dependent for a proper supply of lamps upon the factory of the Sawyer-Man Company, the defendant herein. If the manufacture of lamps by the Sawyer-Man Company were stopped by injunction before a sufficient supply of the said new lamps could be produced, the business of the Westinghouse Company in the manufacture and sale

of dynamos and apparatus other than incandescent lamps would suffer great and irreparable injury from the permanent diversion of such business which the General Electric Company would be enabled to effect by threats and intimidation, as already stated, and its customers and the users of its apparatus would be greatly embarrassed if they were unable to get a proper supply of lamps for renewals, and the public would be put to great inconvenience.

From the best information I can now obtain, I believe that with the utmost diligence it will take until the first of January to establish the manufacture of the said new lamp on a sufficiently large scale to supply all the customers of the Westinghouse Company, and that, even if the court decides that the complainants are en-
235 titled to an injunction against the Sawyer-Man Company, a delay in the issuing of such injunction until that time is essential for the protection of the Westinghouse Company and the users of its apparatus from unnecessary hardship and loss and the public from unnecessary inconvenience.

GEO. WESTINGHOUSE, JR.

Subscribed and sworn to before me this 5th day of November, 1892.

LORENZO C. CARUANA,
[SEAL.] *Notary Public, Kings County.*

Certificate filed in New York Co.

EXHIBIT A.

Consolidation of the Edison and Thomson-Houston Companies.

The most important news of the week is the official announcement of the proposed consolidation of these two companies. The following is the proposed stockholders' agreement appointing a committee to carry out the plan for consolidating the Edison General Electric Company and the Thomson-Houston Electric Company:

Whereas, it is proposed to form a corporation, authorized, among other things, to manufacture, develop and use electricity and electrical apparatus, and to acquire patents, and for the transaction of of business properly connected therewith or incident thereto, such corporation to have a capital stock of $50,000,000, divided into 500,000 shares of $100 each, of which not more than 20 per cent. may be preferred stock, entitled in each year to receive dividends amounting to seven per cent. cumulative, but without any fur-
ther right of participation in the profits, and without pref-
236 erence as to principal, such corporation, for the purposes of its business, to have the right among other things to acquire stock, property and rights of other corporations or individuals.

And certain stockholders of the Edison General Electric Company of New York, or of the Thomson-Houston Electric Company of Connecticut, being willing and desiring to the extent indicated in the several subscriptions hereto or by their deposit in conformity

herewith as hereinafter provided, to promote and participate in such corporation; now, each of them hereby agreeing for himself and not for any other, they do hereby mutually promise and agree as follows, viz:

(1) Each subscriber will deposit with the New York Guaranty and Indemnity Company of New York, or the Old Colony Trust Company of Boston, as a depositary, in exchange for suitable trust receipts, the number of shares of stock indicated and subscribed in his subscription hereto. All stock deposited hereunto shall be held, used and applied for the purposes of this agreement. In case a majority of the stock of the Edison General Electric Company, and also of the Thomson-Houston Electric Company, shall not have become subject to this agreement on or before May 1, 1892, either by subscription or by a deposit of stock on the terms and for the purposes herein specified, or by both such subscription and deposit, or in case this agreement shall have been declared terminated as hereinafter provided, then, and in either of such events, the respective depositaries shall return to the holders of the receipts issued by them, respectively, the stock represented by such receipts or an equal amount of like stock.

(2) After such stock shall have been deposited on the terms, and for the purposes of the agreement, the said depositaries shall transfer and deliver the same to such new corporation for account of the holders of such trust receipts therefor in exchange for full-paid
237 shares of its stock at the par value thereof, in the manner and at the rate following, to wit:

(*a*) Shares of the stock of the Edison Company shall be exchanged in full payment for shares of common stock in the new corporation, share for share.

(*b*) Shares of preferred stock of the Thomson-Houston Company shall be exchanged in full payment for shares of preferred stock of the new corporation, at the rate of four shares of the old stock (par $25 each) for one share of the new (par $100 each).

(*c*) Shares of common stock of the Thomson-Houston Company shall be exchanged in full payment of common stock of the new corporation at the rate of five shares of the old stock for three of the new.

The new stock shall be delivered to the holders of trust receipts for the old stock at the rates above stated upon surrender of such trust receipts. All dividends hereafter declared on account of any deposited stock shall be treated as belonging to and part of such stock.

After the issue of the stock of the new corporation, as required for the purposes above stated, further issues shall be made only for the general purposes of the company.

(3) This plan so far as concerns the subscribers, and any and all stock deposited hereunder, shall be carried out under the direction of a committee, to consist of the following persons: J. Pierpont Morgan, D. O. Mills, H. McK. Twombly, Frederick L. Ames, T. Jefferson Coolidge and Henry L. Higginson. Such committee is hereby authorized and empowered to act by a majority to fill vacan-

cies and to devise and carry out such measures as it shall in its discretion select to accomplish the purposes of this agreement, including the formation or organization of such a corporation and the selection of its corporate powers; and with power to decide as to all questions arising under this agreement, and for the purpose of carrying out this agreement to direct the transfer by the depositaries of the stock deposited hereunder, and to transfer to the name of itself or its nominee all trust, all such stock, with the
238 right to vote thereon. No member of the committee shall be liable except for gross negligence on his own part. The committee shall also have power by the unanimous vote of all its members at any time before the actual exchange of deposited stock for new stock to declare this agreement terminated, and thereafter it shall cease to be operative.

(4) Instead of a new corporation, any existing corporation may, in the discretion of the committee, be selected and reorganized so as to provide for the substantial accomplishment of the purposes of this agreement, and in that event the exchange of stock shall be made in the ratio above provided. The committee may also fix and publish a date after which no stock or stockholder not theretofore party hereto shall have any right to come in under this agreement, except by express permission of the committee, on such terms as it may impose.

(5) Each subscriber hereto shall deposit stock hereunder within ten days after a notice calling for such deposit shall be published by the committee in one paper of general circulation in the city of New York, and one in the city of Boston, and, in default of such deposit, the rights of such subscriber shall, at the discretion of the committee, cease and determine.

(6) This agreement may, for convenience, be signed in several parts, and copies by the subscribers hereto, with like force and effect as if all the signatures were put in one copy thereof. The deposit of stock and the acceptance of trust receipts shall constitute such depositors parties hereto with the same effect as though they had signed this agreement.

239 EXHIBIT B.

N. Y. Stock Exchange Printing Office.

A–807.

Committee on Stock List, New York Stock Exchange.

Edison General Electric Company.

NEW YORK, *January 29th*, 1890.

We respectfully ask your committee to add to the stock list and to admit to the dealings on the exchange the certificates of stock of this company to the amount of..... $7,612,700

Of which there remains to be delivered against outstanding 339 shares Edison Electric Light Company stock	$59,300
And against 80 shares Sprague Electric Railway and Motor Company	5,400
	$64,700
The total capital stock of this company is	$12,000,000
Of which there have been issued, as above	$7,612,700
And delivered to the Farmers' Loan and Trust Company, to be held in trust, as by deeds of trust, submitted herewith	2,496,500
So that there remains in the treasury of the company	1,890,800
	$12,000,000

The Farmers' Loan and Trust Company has issued its printed certificates against the above $2,496,500 of stock of this company, deposited with them under deeds of trust, dated April 26th and December 26th, 1889. Under the provisions of these trusts, the
240 trust certificates will be exchanged for the stock of this company deposited against them, whenever the trustees of this company shall in any one fiscal year declare a dividend of 8 per cent. upon the entire capital stock of the Edison General Electric Company then outstanding.

The Edison General Electric Company was organized under the general laws of the State of New York, in April, 1889, for the purpose of buying out the manufacturing and patent-holding companies mentioned below, and for the manufacture and sale of electric apparatus and electric light and power; but, by advice of counsel, the organization of these companies is retained for the present, and their stocks are in the names of trustees, who, as by certificate filed herewith, hold them in trust for the Edison General Electric Company :

14,003 shares Edison Electric Light Company, out of 15,000 shares. Par, $100.

7,500 shares the Edison Machine Works. Entire capital stock. Par, $100.

7,500 shares Bergmann & Company. Entire capital stock. Par, $100.

400 shares Canadian Edison Manufacturing Company. Entire issued capital stock. Par, $100.

100 shares Edison Lamp Company. Entire capital stock. Par, $2,500.

*13,920 shares Sprague Electric Railway and Motor Company, of

* These shares of Sprague Electric Railway and Manufacturing Company's stock are not included in the trustees' certificate above mentioned, the actual exchange of Sprague stock for Edison General Electric stock not being completed at this date.

which 8,720 shares were acquired since November 1st, 1889. Entire issued capital stock except 80 shares. Par, $100.

1,000 shares Leonard & Izard Company. Entire capital stock. Par, $100.

5,000 shares United Edison Manufacturing Company. Entire outstanding capital stock. Par, $100.

241 *Edison General Electric Company—Balance-sheet, October* 31, 1889.

Assets.

Capital stock of subcompanies		$8,912,859 59
14,003 shares Edison Electric Light Company.		
7,500 shares the Edison machine works.		
7,500 shares Bergmann & Company.		
100 shares Edison Lamp Company.		
5,200 shares Sprague Electric Railway and Motor Company.		
5,000 shares United Edison Manufacturing Company.		
1,000 shares Leonard and Izard Company.		
400 shares Canadian Edison Manufacturing Company.		
Cash on hand		131,305 32
Subscriptions to capital stock		250,000 00
Open accounts:		
Loans to shops	$1,024,227 64	
Other loans	5,042 85	
		1,029,270 49
Real estate—Broad and New streets, New York city		136,756 18
Bills receivable—Received from subcompanies		543,981 83
Special profit and loss estimated—Edison Electric Light Company		105,000 00
		$11,109,173 41

242 Liabilities.

Capital stock	$6,890,300 00
Capital stock in trust	2,135,900 00
Mortgage on real estate	85,000 00
Bills payable	710,000 00
Open accounts	608,571 93

Profit and loss accounts:		
Rentals from real estate	$220 82	
Dividends from subcompanies	587,500 00	
	$587,720 82	
Special profit and loss estimated—Edison Electric Light Co.	105,000 00	
	$692,720 82	
Less expenditures	13,319 34	
		$679,401 48
		$11,109,173 41

As shown by the above loans to the shops, it furnishes them their working capital, and so enables them to conduct their entire business on a cash basis.

Edison Electric Light Company.—This company owns all the Edison patents, and sundry other patents deemed of value, for incandescent electric lighting in North and South America, and all patent litigation is conducted in its name. It grants exclusive licenses for specified territory to local companies, receiving in payment therefor, as royalty, a proportion of all securities (stocks or bonds) issued or to be issued by such licensed companies. On October 31st it held $1,749,573 of stocks and bonds of different companies acquired for such licenses. Its relation to such licensed companies is not only a stockholder, but also the grantor of a license, which it reserves the right to forfeit if its terms are not complied with. Its balance-sheet is herewith submitted.

243 *Edison Electric Light Company—Balance-sheet, October* 31, 1889.

Assets.

Property accounts:		
Permanent plants	$70,197 56	
Rental plants	25,345 80	
Supplies	5,307 11	
		$100,850 47
Cash accounts		5,977 32
Patents		1,032,010 17
Customers		3,267 94
Customers Elgin Edison Light Company		1,817 31
Bills receivable		60,768 10
Trust fund, No. 1		51,612 39
Trust fund, No. 2, D. M. & Co.		25,343 08
Doubtful and extended accounts		8,009 69
T. A. Edison contingent account		1,019 30
Open accounts		33,542 09
Stocks and bonds		1,749,573 00
		$3,073,790 86

Liabilities.

Capital stock		1,500,000 00
General liquidation account		47,864 63
Sinking fund		1,029,671 21
Bills payable		22,747 10
Accounts payable		7,332 54
Open accounts		2,518 75
Profit and loss accounts:		
Profit and loss September 30, 1889	$466,114 34	
" " " current year to date	10,170 31	
	$476,284 65	
244 Less expenses current year to date	12,628 02	
	$463,656 63	
Less amount provisionally transferred by item next below	105,000 00	
		358,656 63
Special profit account		105,000 00
		$3,073,790 86

Edison machine works, Bergmann & Company, the Edison Lamp Company, Canadian Edison Manufacturing Company.—The four above-named companies (owned entirely by the Edison General Electric Company) are corporations engaged in the manufacture of appliances required to furnish light and power by electricity. Their plants and output are as follows:

Edison machine works.—Plant worth $1,500,000, situated on 29 acres of ground at Schenectady, N. Y., employing 1,400 men, and having a present capacity of $3,000,000 a year output.

Edison Lamp Company.—Plant worth $1,200,000, at Harrison, N. J., employing 500 men, and making nothing but lamps, of which its present capacity is 8,000 a day. It has a branch factory at Hamilton, Ont., where lamps used in Canada are manufactured.

Bergmann & Company.—Two plants worth $900,000 in the city of New York, employing 500 men, and having a present capacity of $1,500,000 a year output.

Canadian Edison Manufacturing Company.—Plant worth $40,000, at Sherbrooke, Canada, employing 100 men, started in pursuance to the Canadian laws requiring all patented articles sold in Canada to be manufactured there.

The consolidated balance-sheet of the four manufacturing companies above named is herewith submitted.

245 *Consolidated Balance-sheet, Manufacturing Companies, Oct.* 31, 1889.

Assets.

Consolidated ledger accounts.	Totals.
Property accounts	$1,382,496 72
Cash, accounts receivable and bills receivable	880,031 87
Material and stock on hand	897,200 80
Investments	9,765 00
Patents, rights and royalties	286,750 80
Experimental account	84,094 12
	$3,540,339 31

Liabilities.

Consolidated ledger accounts.	Totals.
Capital stock	$1,790,000 00
Bills payable	97,502 86
Accounts payable	247,369 37
Edison General Electric Company loans	1,024,227 64
Mortgages	65,000 00
Surplus, Nov. 1, 1889, after payment of dividends	316,239 44
	$3,540,339 31

The growth of their business demands immediate and extensive enlargement of all the shops.

Sprague Electric Railway and Motor Company.—This company is engaged in furnishing motive power for railways and in the transmission of power for manufacturing and general purposes. Its business is very large and rapidly extending, and by acquiring the stock of this company the manufacture of all its appliances is secured to the manufacturing department of the Edison General Electric Company.

246 *Balance-sheet for Month of December*, 1889.

Assets.

Property accounts, being expenditures on work in progress, motors, material, etc.	$399,264 35
General accounts, including customers' accounts, bills receivable, bonds, loans, cash, etc.	742,629 64
Experimental property	8,051 44
Patents	672,500 00
Old experimental accounts	190,198 51
	$2,012,643 94

Liabilities.

Capital stock		$1,400,000 00
Liabilities:		
Accounts and bills payable	$598,045 00	
Loans	10,000 00	
Open accounts	2,152 12	
		610,197 12
Profit and loss:		
Profit, March 1 to Dec. 31, 1889	16,166 81	
Loss to Feb. 28, 1889	13,719 99	
		2,446 82
		$2,012,643 94

United Edison Manufacturing Company and Leonard & Izard Company.—These corporations were organized to handle and sell the product of the manufacturing departments of the Edison General Electrical Company, and they, instead of individuals, are the agents of the General Company. They also act as construction companies, and contract for every kind of electric construction. They commenced to act in that capacity but recently, and no statement of their business is at present submitted, as too much of their work is yet in progress.

247 Directors for the year 1890, 1891.—C. H. Coster, Joseph S. Decker, Thomas A. Edison, J. H. Herrick, Samuel Insull, Edward H. Johnson, A. Marcus, Carl Schurz, Francis S. Smithers, Henry Villard, J. Hood Wright.

Executive officers.—President, Henry Villard; vice-president, J. H. Herrick; treasurer, Edward Edes; secretary, A. Marcus; assistant secretary, F. S. Hastings; comptroller, J. P. Ord.

Transfer agent, C. E. Eckerson. Its office and principal place of business is 44 Wall street, in the city of New York. Transfer office, room 2, 6th floor, Mills building. Registrar, The Farmers' Loan and Trust Company, in the city of New York.

All of which is respectfully submitted.

EDISON GENERAL ELECTRIC COMPANY.
J. H. HERRICK, *Vice-president.*
A. MARCUS, *Secretary.*

This committee recommends that the above-described $7,612,700 capital stock be admitted to the list.

S. T. RUSSELL, *Chairman.*

Adopted by the governing committee, February 12, 1890.

GEORGE W. ELY, *Secretary.*

EXHIBIT C.

N. Y. Stock Exchange Printing Office.

A–1261.

Committee on Stock List, New York Stock Exchange.

General Electric Company.

NEW YORK, *May* 31, 1892.

We respectfully ask your committee to add to the stock
248 list and to admit to the dealings on the exchange the certificates of stock of this company, consisting of common stock, $30,460,000; preferred stock, $4,252,000; making a total of $34,712,000.

The total authorized capital stock of this company is $50,000,000, of which $10,000,000 may be preferred. Of the authorized stock there has been issued and actually delivered at this date:

Common, subscribed and paid for in cash at par	$100,000	
Common, for common stock of the Edison General Electric Co., Thomson-Houston Electric Co. and Thomson-Houston International Electric Co.	29,747,100	
Preferred, for preferred stock of the Thomson-Houston Electric Co. and Thomson-Houston International Electric Co.	4,024,400	
		$33,871,500

And there has been reserved for future delivery against certain outstanding shares of the stock of the Edison General Electric Co., Thomson-Houston Electric Co., and Thomson-Houston International Electric Co., as specified below:

Common	$612,900	
Preferred	227,600	
		840,500
Leaving unissued and in the treasury of the company stock of the issue authorized to the amount of		15,288,000
		$50,000,000

The stock to the amount of $612,900 common and $227,600 pre-
ferred above referred to is reserved for future delivery to
249 provide for outstanding stock of the companies above named to such extent as this company may decide to acquire the same, as follows:

	Common.	Preferred.
For 2,765 common shares of Thomson-Houston Electric Co., outstanding	$165,900	
For 6,531 preferred shares of Thomson-Houston Electric Co., outstanding		$163,300
For 3,558 shares of Edison General Electric Co., outstanding	355,800	
For 380 common shares of Thomson-Houston International Electric Co. outstanding	91,200	
For 643 preferred shares of Thomson-Houston International Electric Co., outstanding		64,300
Total common reserved for delivery as above	$612,900	
Total preferred reserved for delivery as above		$227,600

The General Electric Company was organized under the laws of the State of New York, chapter 323, April 15, 1892, for the purpose of manufacturing, using and selling all kinds of electrical and other apparatus, with power to acquire, hold and deal in the stocks and securities of other corporations, manufacturing, buying, selling, leasing or using machinery or apparatus of any kind appertaining to the production, distribution or application of electricity, and to carry on a general manufacturing business. The company has acquired the stocks of the following-named corporations, but the separate organization of these corporations is retained for the present:

237,235 common shares Thomson-Houston Electric Co. out of 240,000 shares. Par $25.

250 153,469 preferred shares Thomson-Houston Electric Co. of 160,000 shares. Par $25.

146,442 shares Edison General Electric Co. out of 150,000 shares. Par $100.

3,620 common shares Thomson-Houston International Electric Co. out of 4,000 shares. Par $100.

1,877 preferred shares Thomson-Houston International Electric Co. out of 2,520 shares. Par $100.

Thomson-Houston Electric Company—Balance-sheet, January 30, 1892.

Assets.

Accounts receivable, merchandise	$6,601,293 03	
Less deductions, 10 % (*a*)	660,129 30	
		$5,941,163 73
Notes receivable	1,636,800 35	
Less deductions, 7½ % (*b*)	122,760 03	
		1,514,040 32
Cash		1,727,276 16
Real estate, about 70 % of cost		430,241 24
Machinery and tools, about 60 % of cost		491,044 53

Office furniture and fixtures (*c*). Cost $27,334.23 (charged off).	
Patterns and models (*d*)	$135,000 00
Patents, expense for the year charged off	338,354 29
Local company's stocks, 35 % of par (*e*)	473,586 60
Local company's bonds, 70 % of par (*f*)	1,858,570 00
Manufacturing company's stock, at cost (*g*)	3,729,195 50
Construction company's stock, at cost (*g*)	1,210,750 00
United Securities Company's stock, at cost	525,420 00
251 Consignments	32,116 79
Merchandise inventory, factory (*h*)	1,731,481 55
Merchandise inventory, railway-supply department	72,593 23
Merchandise inventory, lighting-supply department	52,613 63
	$20,263,447 57

Liabilities.

Capital stock, common		$6,000,000 00
Capital stock, preferred		4,000,000 00
Accounts payable, merchandise		498,808 24
Notes payable, collateral		1,429,486 14
Notes payable, unsecured		587,005 23
Mortgage		1,200 00
Guarantee account (from accrued surplus)		200,000 00
Surplus February 1, 1891		6,022,533 71
Profits for the year	$2,760,780 25	
Less dividend paid during the year	1,236,366 00	
		1,524,414 25
		$20,263,447 57

Statement of Surplus Account.

Surplus February 1, 1891	$6,022,533 71	
Income for year ending January 30, 1892, after deducting dividends paid during the year	1,524,414 25	
Surplus January 30, 1892		$7,546,947 96

BENJ. F. PEACH, JR.,
First Assistant Treasurer.

252 In explanation of the deductions made from the assets of the company, it may be stated that following the conservative policy that has always prevailed, allowances have been made with an idea of placing upon each and every asset a value which will be safe in any contingency.

(*a*) From accounts receivable, the same deduction has been made as in former years. This has in previous years always been found ample.

(*b*) The deduction of 7½ % from notes receivable is 2½ % in excess of the rate deducted in former years, and is regarded as more than a sufficient guarantee for contingencies.

(*c*) Following the precedent of last year, the expense incurred for office furniture and fixtures during the year has been charged to expense account.

(*d*) While a large sum has been expended during the past year in the acquisition of patents this has all been charged to current expense, instead of adding to the patent account.

(*e*) In local company's stock a deduction of 65 % is made, which is 5 % in excess of deductions in former years. More than $200,000 in stocks and bonds of railway and lighting companies at par value are carried in a separate account as of doubtful, though of considerable prospective, value, and do not appear in the inventory at all.

(*f*) These bonds are nearly all payable in gold, and are amply secured by sinking funds and other protective provisions, made under the supervision of competent attorneys of our own selection. A large profit should be realized from the sale of these bonds.

(*g*) The manufacturing and construction companies' stocks are taken at their cost value. The companies represented by these stocks are making very satisfactory earnings and working in harmony with the Thomson-Houston Company, thereby contributing largely to the success of this company.

(*h*) The inventory of merchandise and material at the factory has been taken in the usual way, at less than actual cost.

253 The manufacturing plant of the Thomson-Houston Electric Company represents an investment of $1,000,000, is situated on 23 acres of ground at Lynn, Massachusetts, and contained in sixteen buildings (four more under construction), with 3,800 employees. The present output capacity is $15,000,000 per annum.

The Thomson-Houston Electric Company was organized under a special charter granted by the State of Connecticut, in January, 1883, for the general purposes of manufacturing, using, buying, selling and leasing electrical apparatus for lighting and power and other purposes This charter was subsequently amended by the State of Connecticut in January, 1889. Printed copies of the original charter and amendments are submitted herewith.

The growth of the business from year to year and the numerical increase of local lighting companies and street railway companies is shown in the last annual report, copy of which is submitted herewith.

The directors for the year 1892–1893 are: H. A. Pevear, C. A. Coffin, T. Jefferson Coolidge, Jr., S. Endicott Peabody, Eugene Griffin, C. H. Newhall, J. N. Smith, S. A. Barton, B. F. Spinney.

The executive officers: President, H. A. Pevear; first vice-president and treasurer, C. A. Coffin; second vice-president, Eugene Griffin; secretary, E. I. Garfield; first assistant treasurer, B. F. Peach, Jr.; second assistant treasurer, W. F. Pope.

Office and principal place of business, 620 Atlantic avenue, Boston, Mass. Transfer office and transfer agent, State Street Safe De-

posit and Trust Company, Boston, Mass. Registrar, Old Colony Trust Company, Boston, Mass.

The selling price of material actually shipped from the factory for the four months of the current fiscal year ending May 31, 1892, aggregates $4,500,000.

254 *Edison General Electric Company—Balance-sheet, April 30th, 1892.*

Assets.

Manufacturing plants and real estate	$6,057,368 29
Patents	332,551 22
Capital stock, Edison Electric Light Company	3,826,099 25
Capital stock, Sprague Electric Railway and Motor Company	680,000 00
Sundry stocks and bonds	1,877,965 15
Cash	1,024,771 79
Bills receivable	1,311,512 29
Accounts receivable	3,001,547 92
Expenditures on contracts	1,183,555 76
Property accounts	4,614,752 65
European agency current account	40,184 61
Laboratory account	73,346 78
Liquidation accounts	166,311 43
	$24,189,967 14

Liabilities.

Allowance for depreciation	$686,032 91
Mortgages on real estate	265,000 00
Capital stock	14,970,300 00
Bills payable	5,940,316 95
Accounts payable	614,036 62
Dividends declared and unpaid	301,606 00
Profit and loss, surplus	1,412,674 66
	$24,189,967 14

The manufacturing plant of the Edison General Electric Company consists as follows: Schenectady works, cost $3,320,000, situated on 29 acres of ground at Schenectady, New York, 3,800 employees; New York works, cost $631,000, 400 employees; lamp works, cost $1,340,000, 700 employees; Canadian works, cost
255 $360,000, 400 employees. The present aggregate output capacity per annum is $20,000,000.

The Edison General Electric Company also owns practically all the stock of the Edison Electric Light Company, which company owns and controls the Edison light patents.

Thomson-Houston International Electric Company—Balance-sheet Dec. 1, 1891.

Assets.

Cash	$28,096 18
Accounts receivable, $799,392.53, less 25%, $199,848.13	599,544 40
Bills receivable, $174,896.73, less 20%, $34,979.34	139,917 39
Consignments	46,639 07
Securities of other companies	20,273 47
Patents	286,110 99
Merchandise in store	490 84
Total	$1,121,072 34

Liabilities.

Capital stock—400,000 shares common, 252,000 preferred	$652,000 00
Accounts payable	89,131 01
Bills payable	60,967 41
Surplus	318,973 92
Total	$1,121,072 34

The Thomson-Houston International Electric Company conducts the foreign and export business of the Thomson-Houston Electric Company.

256 *General Electric Company—Balance-sheet, May 31, 1892.*

Assets.

Capital stocks:		
Edison General Electric Co.	$14,644,200	
Thomson-Houston Electric Co., 237,235 shares	14,234,100	
Thomson-Houston International Co., 3,620 shares	868,800	
		$29,747,100
Capital stocks, preferred:		
Thomson-Houston Electric Co., 153,468 shares	$3,836,700	
Thomson-Houston International Co., 1,877 shares	187,700	
		4,024,400
Cash		74,785
Franchise tax		25,000
General expenses		215
		$33,871,500

Liabilities.

Capital stock—Common	$29,847,100	
Preferred	4,024,400	
		$33,871,500

Directors for the year 1892–1893: H. McK. Twombly, chairman of the board; F. L. Ames, C. H. Coster, C. A. Coffin, T. Jefferson Coolidge, T. A. Edison, F. S. Hastings, H. L. Higginson, Eugene Griffin, D. O. Mills, J. Pierpont Morgan.

Executive officers: President, C. A. Coffin; first vice-president, Eugene Griffin; second vice-president, Samuel Insull; treasurer, A. S. Beves; first assistant treasurer, B. F. Peach, Jr.; second
257 assistant treasurer, W. F. Pope; secretary, E. I. Garfield; assistant secretary, A. S. Beves; comptroller, J. P. Ord; auditor, E. Clark.

Transfer agents and offices: C. E. Eckerson, 4th floor, Mills building, New York; E. W. Foote, 620 Atlantic avenue, Boston, Mass.

Registrars: New York Guaranty and Indemnity Company, New York, and Old Colony Trust Company, Boston.

All of which is respectfully submitted.

GENERAL ELECTRIC COMPANY,
By C. A. COFFIN, *President.*
A. S. BEVES, *Treasurer.*

This committee recommends that on June 23, 1892, $29,847,100 of the above-described common stock, and on July 1, 1892, $4,024,400 of the above-described preferred stock be admitted to the list. Also that this committee be empowered to add to the list, from time to time, $612,900 additional common and $227,600 additional preferred stock, as they shall receive notice from the company that said stock is issued.

S. T. RUSSELL, *Chairman.*

Adopted by the governing committee, June 22, 1892.

GEORGE W. ELY, *Secretary.*

258 EXHIBIT D.

Know all men by these presents: That—

(1) Whereas, the Consolidated Electric Light Company, hereinafter referred to as the Consolidated Company, a corporation duly established under the laws of the State of New York, is the owner of certain letters patent of the United States, a schedule whereof is hereto annexed marked "A;"

(2) Whereas, certain contracts in writing have up to the date hereof existed between said Consolidated Company, the Sawyer-Man Electric Company, a corporation established under the laws of the State of New York, and the Thomson-Houston Electric Company, hereinafter referred to as the Thomson-Houston Company, a corporation established under the laws of the State of Connecticut, which contracts have been this day, by mutual consent of all the parties, canceled and annulled, under which contracts said Thomson-Houston Company had a license;

(3) And whereas, it is agreed that said Thomson-Houston Company shall have a license from said Consolidated Company under the patents now owned, and all that may be hereafter owned or con-

trolled by said Consolidated Company to the extent and on the terms hereinafter set forth:

(4) Now, therefore, the Consolidated Company, for and in consideration of the covenants and agreements of the Thomson-Houston Company, hereinafter contained, does hereby give and grant unto said Thomson-Houston Company the right and license to make, use and sell the inventions shown and described in any and all said letters patent named in Schedule "A" hereto annexed, for any purpose, and the right and license to make, use and sell the inventions shown and described in any other letters patent that said Consolidated Company now owns or controls, or may hereafter own or control, relating in any way to incandescent lamps, sockets or attachments therefor or the manufacture thereof; but the license hereby
259 granted to said Thomson-Houston Company to make, use and sell incandescent lamps and sockets and attachments therefor is limited to the right to make and sell the same for exportation from this country, and for use with generating apparatus of its own manufacture now or hereafter in use in this country, whether of the types now made by it or any other types it shall hereafter make at its present or any other factory.

(5) The Thomson-Houston Company, for and in consideration of the grant of said license, hereby covenants and agrees that it will pay to the Consolidated Company a royalty or license fee on the apparatus made and sold by it under the said patents, at the rate of five cents per lamp on each and every incandescent lamp embodying the inventions patented in said letters patent or any of them, or in the manufacture of which said inventions are employed, whose candle power shall be one hundred candle power or less, and at the rate of ten cents on each and every such incandescent lamp so made and sold by it that shall be of more than one hundred candle power, which sums shall be paid to and received by the Consolidated Company in full settlement of all royalties due from the Thomson-Houston Company under this license.

(6) The Thomson-Houston Company shall within thirty days after the first day of every calendar month from and after the date hereof, during the term of this license, make returns in writing of all such incandescent lamps sold and shipped by it during the preceding calendar month, with the names of the persons to whom the same are sold and shipped, and with their residences; and at the same time shall transmit to said Consolidated Company the royalties due at the rate aforesaid on the lamps sold and shipped during said calendar month.

(7) The Consolidated Company hereby covenants and agrees that it will use all reasonable efforts to restrain infringers of its said letters patent on or relating to incandescent lamps, or their
260 manufacture, by bringing suits on said patents and pressing the same as vigorously as possible to final hearing, and to protect the said Thomson-Houston Company against the competition of such infringers; and the Thomson-Houston Company agrees that it will not, directly or indirectly, aid or encourage any infringe-

ment of said patents, but will use its influence and make all reasonable efforts to prevent the same, but without expense to it.

(8) In case letters patent No. 211,262, named in said Schedule "A," for a mode of treating filaments for incandescent lamps, or letters patent No. 317,676, also named in said Schedule "A," for a fibrous carbon filament, or any other patent now or hereafter belonging to the Consolidated Company, or letters patent No. 306,980 belonging to the United States Electric Lighting Co. is declared by any circuit court of the United States in a contested suit to be a good and valid patent and to cover the removal of the occluded gases from the filament, or the electrical treatment of the filament in a hydrocarbon bath, or a fibrous carbon filament of textile or other fibrous material, so that said Consolidated Company shall substantially control the manufacture of commercial incandescent lamps, and be able to exact royalties from all other manufacturers not already licensed, the royalty to be paid by the Thomson-Houston Company shall be thereafter the sum of seven and one-half cents per lamp on each and every incandescent lamp manufactured and sold by it of one hundred candle power or less, and fifteen cents on each that exceeds one hundred candle power in brilliancy so long as said decrees remain unreversed and effectual so as to control said business. In case all of said patents, No. 211,262, No. 306,980, and No. 317,676, are declared by any court in the United States to be invalid or not to have the scope hereinbefore specified, all royalties shall cease, and the Thomson-Houston Company shall thereafter carry on its business without payment of any kind to the Consolidated Company. But if such decrees shall
261 be reversed and said patents declared to be valid and to have such scope as aforesaid, or if, as aforesaid, any other patent now or hereafter owned by the Consolidated Company shall be sustained by the courts so that said Consolidated Company shall control the manufacture of incandescent lamps and exact royalty of other manufacturers as aforesaid, said Thomson-Houston Company shall forthwith begin payments of royalty to said Consolidated Company in accordance with the terms of this contract, it being the intent and purpose of the parties hereto that the payments of royalty hereinbefore provided shall be made during such time as said parties shall have the benefit and protection of the above-named patents of said Consolidated Company, but shall be suspended in case that and so long as the same are not effective to afford such benefit and protection to said Thomson-Houston Company.

(9) It is agreed that if the Consolidated Company makes an agreement with any other person or company owning or controlling patents on incandescent lamps or the manufacture thereof, or sockets or attachments therefor, whereby the Consolidated Company shall secure for itself or any of its licensees any rights to make or sell lamps under such patents owned or controlled by such other person or company, there shall be secured to the Thomson-Houston Company a license to make and sell incandescent lamps and sockets and attachments therefor under such patents for exportation and for use in this country, in connection with generating apparatus of its own

manufacture, without the payment of any additional royalty; and the Consolidated Company agrees not to enter into such agreement without securing to the Thomson-Houston Company such a license.

(10) The Consolidated Company agrees that it will not sell any incandescent lamps for use with any of said generating apparatus of the Thomson-Houston Company's manufacture, and in case it grants any license to make and sell incandescent lamps under its said patents, it will restrict said license so that the licensees
262 shall have no right to sell incandescent lamps for use with any of said generating apparatus of the Thomson-Houston Company's manufacture, and will use all reasonable efforts to prevent such licensees from so doing, bringing suit, if necessary, therefor; and the Thomson-Houston Company agrees that it will use all reasonable efforts to prevent the users of its generating apparatus from using any unlicensed lamps in connection with said generating apparatus.

(11) The Thomson-Houston Company shall not change its present form of incandescent-lamp bottom in such a way as to fit the standard sockets of the Consolidated Company or its licensees, as they may from time to time adopt such standard sockets.

(12) The Consolidated Company agrees that it will not, except as hereinafter provided, manufacture lamps with bottoms which will fit the socket, now known as the standard Thomson-Houston Company socket, or any other standard socket which the Thomson-Houston Company may hereafter adopt, and that if it grants licenses under its said patent it will restrict its licensees in the same manner and to the same extent.

(13) If the Thomson-Houston Company makes and sells lamps not covered by said patents, and refuses to pay royalty on the same, it shall notify the Consolidated Company in writing of the fact before selling any such lamps, and shall send a specimen of the proposed new lamp to the Consolidated Company, and thereupon the Consolidated Company and its other licensees shall be released from their obligations not to sell lamps for use in connection with the generating apparatus of the Thomson-Houston Company's manufacture.

(14) The Consolidated Company agrees that it will grant no licenses under its said patents, or any of them, at a less royalty than that at which the Thomson-Houston Company is hereby licensed, without at the same time reducing the Thomson-Houston Company's royalty to the same rate, it being the intent that the
263 Thomson-Houston Company shall at no time be required to pay a greater royalty than the most favored licensee of the Consolidated Company whose license shall be hereafter granted; it is, however, agreed that the Consolidated Company may exchange licenses with the United States Electric Lighting Company on treating patents No. 211,262 and 229,335, securing a license to the Thomson-Houston Company under said United States Company's patent No. 306,980, dated October 21st, 1884, for the term or terms of this contract, without further cost to it.

(15) It is agreed that a correct list of the stations of the Thomson-Houston Company now using its generating apparatus for incandes-

cent lighting shall be hereunto attached as Schedule "B," and that a list of stations belonging to the Sawyer-Man Electric Company, the licensee of the Consolidated Company under the agreements hereinbefore recited, shall be hereunto attached as Schedule "C:". and it is agreed that the Consolidated Company shall have the exclusive right to supply lamp renewals for plants named in Schedule "C" for use upon all Thomson-Houston dynamos forming part of said plants at this date, but upon no other Thomson-Houston dynamos.

(16) It is further agreed that where the Consolidated Company has heretofore supplied lamps with what is known as the Thomson-Houston standard bottom for use with Thomson-Houston dynamo or dynamos of other manufacture, it shall have the right to continue to supply renewals and extensions for such dynamos now in use with such bottoms up to the generating capacity of said dynamos, it being understood that it is the intention of the Consolidated Company to replace the sockets now in use with the standard Westinghouse socket as soon as practicable.

(17) It is further agreed that the Thomson-Houston Company shall continue to supply to the Consolidated Co. for the use of its licensee, the Sawyer-Man Electric Co., such generating apparatus as may be ordered by it up to January 1st, 1889, to supply orders
264 said Sawyer-Man Company now has or may receive prior to January 1st, 1889, upon propositions now pending, and that it shall supply the apparatus with reasonable promptness at a price equal to the cost of labor and material plus 25% plus 20% on amounts so obtained, and shall continue to supply such Thomson-Houston lamp bases as the Consolidated Company may require for use therewith.

(18) It is understood that in all cases where the Thomson-Houston Company may have bought generating apparatus from the Westinghouse Electric Company for use in stations in Schedule "D" to be hereafter attached, the Thomson-Houston Company shall have the right to furnish the lamp renewals for use on Westinghouse dynamos purchased up to the present time.

(19) The Consolidated Company hereby agrees that if, at any time, the Thomson-Houston Company desires that suit shall be brought against any manufacturer of incandescent lamps, who infringes any of said letters patent on incandescent lamps, or parts thereof, or processes for the manufacture thereof, under which the Thomson-Houston Company is hereby licensed, and the Consolidated Company shall fail to bring such suit within sixty days after notice in writing from the Thomson-Houston Company that it desires said suit to be brought, the Thomson-Houston Company may, if it elect, bring suit against said infringers in the name of said Consolidated Company or in the name of the person or persons holding the title to said patents, if said patents have been transferred, and prosecute the same, but at its own expense, and without expense to the Consolidated Company or the owners of said patent.

The Consolidated Company hereby constitutes and appoints the Thomson-Houston Company its attorney, in its name and stead, to bring such suits under the circumstances hereinbefore pointed out.

265 The Consolidated Co. shall have the right to appoint associate counsel for the conduct of such suit, but at its own expense.

(20) This license and contract shall expire May 29th, 1895, but the Thomson-Houston Company shall have a right to renew it for any and all of the patents to May 12th, 1902, upon the payment of a royalty equal to the minimum royalty paid by any other party for use of any of the patents under which a license is hereby conveyed, but not to exceed in all the royalty hereinbefore provided to be paid.

The Consolidated Electric Light Co., by Hugh R. Garden, its president, hath executed these presents and hath caused its corporate seal to be affixed hereto by Henry C. Davis, its secretary; and the Thomson-Houston Electric Company, by C. A. Coffin, its vice-president and treasurer, hath executed these presents and hath caused its corporate seal to be affixed hereto this 1st day of December, 1888.

(Signed) THE CONSOLIDATED ELECTRIC L'T CO.,

[SEAL.] By HUGH R. GARDEN, *Pres't.*

Attest: HENRY C. DAVIS, *Sec'y.*

(Signed) THOMSON-HOUSTON ELECTRIC CO.,

[SEAL.] By C. A. COFFIN, *V. P. & Treas'r.*

Attest: E. I. GARFIELD, *Sec'y.*

The Westinghouse Electric Company, a Pennsylvania corporation, having leased the Consolidated Company, in consideration of the execution of the foregoing agreement by the Thomson-Houston Company, hereby, as such lessee, guarantees the faithful performance of the said agreement by the said Consolidated Company during the continuance of its said lease, and assumes all of the

266 obligations of the Consolidated Company under this agreement; and in its own behalf, and the Sawyer-Man Electric Company above named, on its own behalf, agree to be bound by and carry out and observe all the covenants of said contract in so far as the same are applicable to licensees of the Consolidated Company and manufacturers of incandescent lamps under its patents exactly to the same extent that said Consolidated Company and its licensees and manufacturers under its patents are bound so to do.

[SEAL.] In witness whereof, the Westinghouse Electric Co. and the Sawyer-Man Electric Company have caused these presents to be signed and their corporate seals to be hereto affixed this 1st day of December, 1888.

(Signed) THE WESTINGHOUSE ELECTRIC CO.,

By GEO. WESTINGHOUSE, JR.,

Pres't The Westinghouse Electric Co.

Attest: A. T. ROWAND, *Sec'y.*

[SEAL.] (Signed) SAWYER-MAN ELECTRIC CO.,

By GEO. WESTINGHOUSE, JR.,

Pres't Sawyer-Man Electric Co.

Attest: GEO. H. LEWARS, *Sec'y.*

267 SCHEDULE A.

Annexed to Agreement between the Consolidated Electric Light Company and the Thomson-Houston Electric Company, Dated December 1st, 1888.

The entire interest in the following:

No. 205,144	June 18, 1878	W. E. Sawyer & Albon Man, for electric lights.
No. 205,303	June 25, 1878	W. E. Sawyer & Albon Man, for lighting switch.
No. 205,305	June 25, 1878	W. E. Sawyer & Albon Man, regulator.
No. 210,151	Nov. 19, 1878	W. E. Sawyer, meter.
No. 210,152	Nov. 19, 1878	W. E. Sawyer & Albon Man, switch.
No. 210,809	Dec. 10, 1878	W. E. Sawyer & Albon Man, electric lamp.
No. 211,262	Jan. 7, 1879	W. E. Sawyer & Albon Man, carbon for electric lights.
No. 219,771	Sept. 16, 1879	W. E. Sawyer, electric lamp.
No. 224,612	Feb. 17, 1880	W. E. Sawyer, carbon-treating apparatus.
No. 225,730	Mar. 23, 1880	Stillman, nitrogen.
No. 226,483	Apr. 13, 1880	J. E. Braunsdorf, dynamo.
No. 226,632	Apr. 20, 1880	Stillman, nitrogen.
No. 227,365	May 11, 1880	E. R. Knowles, switch.
No. 227,386	May 11, 1880	W. Sawyer, electric lamp.
No. 227,387	May 11, 1880	W. Sawyer, electric lamp.
No. 227,388	May 11, 1880	W. Sawyer, electric lamp.
No. 227,389	May 11, 1880	W. Sawyer, electric lamp.
No. 227,390	May 11, 1880	W. Sawyer, electric lamp.
No. 227,454	May 11, 1880	Stillman, nitrogen.
No. 227,845	May 18, 1880	W. Sawyer, dynamo.
No. 228,122	May 25, 1880	W. Sawyer, electric lamp.
No. 228,123	May 25, 1880	W. Sawyer, resistances.
No. 229,335	June 29, 1880	W. E. Sawyer & Albon Man, carbons for electric light.
No. 229,476	June 29, 1880	W. E. Sawyer & Albon Man, switch.
No. 230,345	July 20, 1880	W. Sawyer, automatic regulator.
No. 230,346	July 20, 1880	W. Sawyer, safety switch.
No. 233,284	Oct. 12, 1880	W. Sawyer, electric lamp.
No. 235,385	Dec. 14, 1880	W. Sawyer, dynamo.
No. 235,459	Dec. 14, 1880	W. Sawyer, electric lamp.
No. 235,460	Dec. 14, 1880	W. Sawyer & W. E. Sawyer, switch.
No. 237,608	Feb. 8, 1881	W. Sawyer, switch.
No. 237,632	Feb. 8, 1881	W. E. Sawyer, dynamo.
No. 241,242	May 10, 1881	W. E. Sawyer & E. R. Knowles, dynamo.
No. 241,430	May 10, 1881	W. E. Sawyer & R. Street, electric lamp.
No. 243,196	June 21, 1881	A. Bernstein, arc lamp.
268		
No. 245,976	Aug. 23, 1881	W. E. Sawyer & R. Street, electric regulator.
No. 248,156	Oct. 11, 1881	Fox & Bohm, lamp.
No. 248,406	Oct. 18, 1881	Crosby & Fox, electric & gas fixtures.
No. 248,407	Oct. 18, 1881	Crosby & Fox, lamp.
No. 248,279	Oct. 18, 1881	L. K. Bohm, vacuum pump.
No. 249,716	Nov. 15, 1881	A. Wirching, dynamo.
No. 250,192	Nov. 29, 1881	L. K. Bohm, lamp.
No. 250,193	Nov. 29, 1881	L. K. Bohm, lamp.
No. 270,399	June 12, 1883	E. R. Knowles & F. E. Idell, dynamo.
No. 282,534	Aug. 7, 1883	E. R. Knowles & F. E. Idell, electric lamp.
No. 292,121	Jan. 15, 1884	E. R. Knowles & F. E. Idell, dynamo electric machine.
		E. R. Knowles & F. E. Idell, incandescent electric lamp.
No. 317,678	May 12, 1885	Wm. E. Sawyer & Albon Man, electric light.

Reissues.

No. 9,807	July 19, 1881	W. E. Sawyer & Albon Man, carbon for electric lamps.
No. 9,836	Aug. 9, 1881	W. Sawyer, dynamo.
No. 10,134	June 6, 1882	W. E. Sawyer & Albon Man, electric-lighting system.

Schedule A—Continued.

An undivided two-fifths interest in the following patents:

No. 194,111	Aug. 14, 1877	W. E. Sawyer, electrical engineering system.
No. 194,500	Aug. 21, 1877	W. E. Sawyer, electric candles.
No. 194,563	Aug. 28, 1877	W. E. Sawyer, electric-lighting apparatus.
No. 196,834	Nov. 6, 1877	W. E. Sawyer, electric engineering.

Also the entire interest in the following:

No. 269,132	Dec. 12, 1882	William Stanley, Jr., electric lamp.
No. 269,133	Dec. 12, 1882	William Stanley, Jr., air pump.
No. 294,412	Mar. 4, 1884	William Stanley, Jr., air pump.
No. 316,302	Apr. 21, 1885	William Stanley, Jr., filament for incandescent electric lamps.
No. 322,496	July 21, 1885	William Stanley, Jr., multiple incandescent electric lamp.
No. 323,205	July 28, 1885	A. L. Reinmann, manufacture of incandescent lamps.
No. 323,372	July 28, 1885	William Stanley, Jr., & E. P. Thompson, carbon for incandescent lamp.
No. 326,459	Sept. 15, 1885	S. H. Sprague, bulb case for incandescent electric lamps.
No. 331,546	Dec. 1, 1885	A. L. Reinmann, valve case for mercurial air pumps.
269		
No. 333,028	Dec. 22, 1885	William Stanley, Jr., globe for incandescent electrical lamps.
No. 338,551	Mar. 23, 1886	A. L. & C. F. Reinmann, apparatus for the production of high vacuums.
No. 338,552	Mar. 23, 1886	A. L. Reinmann, pump for the production of high vacuums.
No. 345,542	July 13, 1886	A. L. Reinmann, cement for securing metal rings to electric lamp bulbs.
No. 345,543	July 13, 1886	A. L. & C. F. Reinmann, valve for mercurial pumps.
No. 345,860	July 20, 1886	A. L. Reinmann, apparatus for carbonizing fibre.
No. 353,158	Nov. 23, 1886	A. L. Reinmann, incandescent electric lamp.
No. 355,714	Jan. 11, 1887	A. L. Reinmann, method of drying incandescent electric lamp bulbs.
No. 363,559	May 24, 1887	William Stanley, Jr., incandescent electric lamp.
No. 374,850	Dec. 13, 1887	C. F. Reinmann, method of testing electric lamp globes.
No. 383,140	May 22, 1888	O. A. Moses, manufacture of incandescent electric lamps.
No. 383,616	May 29, 1888	H. M. Byllesby & P. Lange, incandescent lamp.

The end of Schedule A.

SCHEDULE B.

Salem Electric Light Co.—Salem, Mass.
Norwich Electric Light Co.—Norwich, Conn.
Essex Electric Light and Power Co.—Haverhill, Mass.
Middlesex Electric Light Co.—Lowell, Mass.
Bristol Electric Light Co.—Bristol, Conn.
Woonsocket El. Machine & Power Co.—Woonsocket, R. I.
Pawtucket Gas Light Co.—Pawtucket, R. I.
Bangor Electric Light & Power Co.—Bangor, Me.
Nashua Electric Light Co.—Nashua, N. H.
Terre Haute Electric Light & Power Co.—Terre Haute, Ind.
Cleveland Electric Light Co.—Cleveland, Ohio.
Natick Electric Co.—Natick, Mass.
Thomas-Houston Electric Co.—Clinton, Iowa.
C. H. Farnsworth—Albert Lea, Minn.
New Haven Electric Co.—New Haven, Conn.
Memphis Thomson-Houston El. Co.—Memphis, Tenn.
Hudson Electric Light Co.—Hudson, Mass.
270 Malone Electric Light & Power Co.—Malone, N. Y.

Schedule B—Continued.

Badger Electric Co.	Racine, Wis.
Thos. E. Wells	Sandy Hill, N. Y.
Worcester Electric Light Co.	Worcester, Mass,
Westboro' Electric Light & Power Co.	Westboro', Mass.
Northampton Electric Light Co.	Northampton, Mass.
Hartford Electric Light Co.	Hartford, Conn.
Thomson-Houston Electric Co.	Fulton, N. Y.
Kansas City Electric Light Co.	Kansas City, Mo.
Malden Electric Light Co.	Malden, Mass.
Bloomington Electric Light Co.	Bloomington, Ill.
Chicago Arc Light Co.	Chicago, Ill.
Naugatuck Electric Light Co.	Naugatuck, Conn.
McPherson Thomson-Houston Electric Co.	McPherson, Kan.
Greenfield Electric Light Co.	Greenfield, Mass.
Columbus Electric Light & Power Co.	Columbus, O.
Newburyport Electric Light & Power Co.	Newburyport, Mass.
Dover Electric Co.	Dover, N. H.
Boston Electric Light Co.	Boston, Mass.
Canastota Electric Light & Power Co.	Canastota, N. Y.
Georgia Electric Light Co.	Atlanta, Ga.
Birmingham Gas & Electric Light Co.	Birmingham, Ala.
New Omaha Thomson-Houston Electric Co.	Omaha, Neb.
Consolidated Electric Light Co.	Portland, Me.
Seneca Electric Co.	Seneca Falls, N. Y.
Jacksonville Electric Light & Power Co.	Jacksonville, Fla.
New Rochelle Electric Light Co.	New Rochelle, N. Y.
Syracuse Electric Light & Power Co.	Syracuse, N. Y.
Poughkeepsie Electric Light & Power Co.	Poughkeepsie, N. Y.
Newton Electric Light & Power Co.	Newton, Mass.
West Point Water, Light & Power Co.	West Point, Va.
Charleston Light & Power Co.	Charleston, S. C.
Hempstead Gas Light Co.	Hempstead, L. I.
Lynn Gas & Electric Co.	Lynn, Mass.
Framingham Electric Co.	South Framingham, Mass.
J. W. Warner	Oneida, N. Y.
Rome Gas Light Co.	Rome, N. Y.
Hudson Electric Light Co.	Hudson, N. Y.
Leicester Electric Co.	Leicester, Mass.
F. E. Palmer	Marion, Kan.
Portsmouth Electric Light Co.	Portsmouth, N. H.
Webster Electric Co.	Webster, Mass.
Moses Joy, Jr.	Petersburgh, Va.
Hallowell Electric Light & Power Co.	Hallowell, Me.
Northwestern Electric Construction Supply	Faribault, Minn.
271 Phœnix Electric Light & Coal Co.	E. Greenwich, R. I.
Orange Electric Light Co.	Orange, Mass.
F. E. Palmer	Oswego, Kan.
Lewiston & Auburn Electric Light Co.	Auburn, Me.
Ware Electric Light Co.	Ware, Mass.
Toledo Electric Co.	Toledo, O.
Waterville Electric Light & Power Co.	Waterville, Me.
Patchogue Electric Light Co.	Patchogue, L. I.
Woburn Electric Light Co.	Woburn, Mass.
Narragansett Pier El. L't & P'r Co.	Narragansett Pier, R. I.
Eastport Electric Co.	Eastport, Me.
North Shore Electric Co.	Revere, Mass.
Thomson-Houston Electric Co.	Augusta, Ga.
Thomson-Houston Electric Co.	Lyons, N. Y.
Westfield Gas Co.	Westfield, Mass.
Cambridge Electric Light Co.	Cambridge, Mass.
East River Electric Light Co.	New York, N. Y.
Gardner Electric Co.	Gardner, Mass.
Hartford Dynamic Co.	Southington, Conn.
Auburn Electric Light Co.	Auburn, N. Y.
Brandon Electric Light Co.	Brandon, Vt.

Schedule B—Continued.

Thomson-Houston Electric Light Co.	Yonkers, N. Y.
Plymouth Electric Light Co.	Plymouth, Mass.
Connecticut Electric Co.	Waterbury, Conn.
Belfast Electric Co.	Belfast, Me.
Milford Electric Light & Power Co.	Milford, Mass.
W. W. Cummer	Cadillac, Mich.
Potsdam Electric Light & Power Co.	Potsdam, N. Y.
Westerly El. L't Co.	Westerly, R. I.
B. C. Faurot	Lima, O.
L. B. Townsend & Co.	Ionia, Mich.
Watertown Light, Heat & Power Co.	Watertown, Dakota.
W. B. Sterling	Helena, Mont.
Paterson Electric Light Co.	Paterson, N. J.
Owego Electric Light & Motor Co.	Owego, N. Y.
Brockport Electric Co.	Brockport, N. Y.
Richford Electric Light Co.	Richford, Vt.
Standard Electric Light & Power M'f'g Co.	Montpelier, Vt.
Waltham Gas Light Co.	Waltham, Mass.
Thomaston Electric Light Co.	Thomaston, Conn.
Macon Gas Light & Water Co.	Macon, Ga.
Fort Dodge Electric Light & Power Co.	Fort Dodge, Iowa.
J. Allen Porter	Sterling, Kan.
T. I. Seevres	Marshalltown, Iowa.
Thomson-Houston Electric Co.	Newton, Iowa.
Phœnix Electric Light Co.	Phœnix, N. Y.
Jamestown Electric Light & Power Co.	Jamestown, N. Y.
Hyde Park Electric Light & Power Co.	Hyde Park, Mass.
Pensacola Electric Light Co.	Pensacola, Fla.
Glens Falls Electric Light & Power Co.	Glens Falls, N. Y.
272 Wachusett Electric Light Co.	Fitchburg, Mass.
Putnam Electric Light Co.	Putnam, Conn.
Hitchcock M'f'g Co.	Cortland, N. Y.
Morgan Engineering Co.	Alliance, O.
Topeka Sugar Co.	Topeka, Kan.
Studebacker Bros.	Chicago, Ill.
Calumet & Hecla Mining Co.	Calumet, Mich.
Tuttle & Whittemore	Union City, Conn.
W. S. Butler & Co.	Boston, Mass.
R. H. Stearns & Co.	Boston, Mass.
Berlin Iron Bridge Co.	E. Berlin, Conn.
Adams Express Co.	New York city.
Bridgeport Electric Light Co.	Bridgeport, Conn.
Minneapolis Water Works Co.	Minneapolis, Minn.
Quincy Electric Light & Power Co.	Quincy, Mass.

(End of Schedule B.)

Correct.

(Signed) J. P. FELTON,
For Thomson-Houston El. Co.
" C. H. BARNEY,
For Sawyer-Man El. Co.

SCHEDULE C.

List of Isolated Plants Installed by the Consolidated Electric Light Co. and Sawyer-Man Electric Co. to December 1st, 1888.

Name.	Location.	Dy. capacity.	Lights inst'l'd.
Am. Exchange Nat. bank	New York City	250	200
J. A. Roebling's Sons Co.	"	50	50
N. Y. Steam Co.	"	250	250
Do.	"	100	
New York Tribune	"	300	290
Do.	"	150	
L. & M. Steinhardt	"	2-200	400
United Bank building	"	2-100	125
W. H. Jackson & Co.	"	200	200
Brooklyn Bridge Freezing and Cold Storage Co.	"	50	80
L. Steinhardt & Sons	"	2-200	400
F. Lovejoy (yacht "Nearis")	"	50	50
Hudson River tunnel	"	200	100
Thos. Liddle	Amsterdam, N. Y.	75	100
Kline & Hubbs	"	75	85
A. R. Morris & Son	"	2-75	200
Schuyler & Blood	"	150	200
Wm. Pawling	"	100	110
N. T. Kane	Averill Park, N. Y.	75	66
273 Hawley's Box Co.	Brooklyn, N. Y.	250	250
Cowperthwait Co.	"	100	120
Chesebrough M'f'g Co.	"	75	110
E. N. Cook & Co.	Buffalo, N. Y.	50	60
Co-operative Brewing Co.	"	50	60
Laurel Hill chemical works	Brooklyn, N. Y.	200	175
Troy Waste M'f'g Co.	Cohoes, N. Y.	50	55
Diamond knitting mills	"	50	62
Walker & Williams	"	50	50
Fonda Knitting Co.	Fonda, N. Y.	75	75
Dunn, Smith & Co.	Fort Plain, N. Y.	150	144
Kraft & Searing	Kingston, N. Y.	50	45
W. N. Sprague	Middle Falls, N. Y.	50	75
Saxton & Thompson	Lockport, N. Y.	75	75
R. J. Oliphant	Oswego, N. Y.	75	75
Reynolds & Eddy	Rochester, N. Y.	300	300
Rochester Paper Co.	"	100	100
Whitney & Wilson	"	50	70
H. P. Ramsdell	Salisbury Mills, N. Y.	50	40
N. W. Wait & Son	Sandy Hill, N. Y.	75	75
Goulds M'f'g Co.	Seneca Falls, N. Y.	150	200
Rossman Knitting Co.	Stockport, N. Y.	60	55
Troy Press Co.	Troy, N. Y.	50	80
Hudson Valley Knitting Co.	Waterford, N. Y.	150	106
Waterford Knitting Co.	"	150	150
Ford & Pynes	"	100	100
C. R. Remington & Son	Watertown, N. Y.	75	75
Knowlton Bros.	"	100	100
Taggart Bros.	"	75	50
Grant & Son	Bar Harbor, Me.	150	150
Bar Harbor Ill'g Co.	"	2-300	1,800
" "	"	2-400	
Hammond & Thurston	Concord, N. H.	75	75
Kearsarge house	No. Conway, N. H.	145	100
Bigelow & Dowse	Boston, Mass.	50	53

Schedule C—Continued.

Name.	Location.	Dy. capacity.	Lights inst'l'd.
Marston & Co.	Boston, Mass.	200	180
New England Tel. & Tel. Co.	"	100	100
Roxbury Carpet Co.	"	50	50
A. J. Wilkinson & Co.	"	75	75
Boston Woven Hose Co.	Cambridge, Mass.	150	150
Abbot & Co.	Forge Village, Mass.	200	200
Abbott Worsted Co.	Graniteville, Mass.	50	65
Thayer & Judd	New Bedford, Mass.	100	100
Belding Bros.	Northampton, Mass.	250	250
Tillotson & Power	Pittsfield, Mass,	200	200
L. Pomeroy & Sons	"	50	60
Merrimac Chemical Co.	So. Wilmington, Mass.	50	30
Morgan Envelope Co.	Springfield, Mass.	50	110
Cohanet mills	Taunton, Mass.	150	250
Montague Paper Co.	Turner's Falls, Mass.	200	259
" "	"	50	
Turner's Falls Paper Co.	"	50	64
Goodyear Metallic Rubber Shoe Co.	Naugatuck, Ct.	75	75
Rumford chemical works	Providence, R. I.	150	158
Baldwin locomotive works	Philadelphia, Pa.	100	100
274 Baugh & Sons	Philadelphia, Pa.	150	255
"	"	100	
Erben, Search & Co.	"	150	75
Geo. Callaghan	"	100	100
Hersh & Bro.	"	50	53
Hood, Bonbright & Co.	"	2-400	950
J. C. Graham	"	300	400
"	"	100	
Keystone Watch Case Co.	"	150	250
Sevill, Schofield, Sons & Co.	Philadelphia, Pa.	100	100
Thomson-Houston El. Co.	"	35	35
J. S. & T. Elkinton	"	75	66
W. M. Singerly (yacht "Restless")	"	30	34
Wanamaker & Brown	"	75	75
Geo. W. Patton & Co.	Burmont Station, Pa.	50	40
Grundy Bros. & Campion	Bristol, Pa.	300	275
J. Pierce & Co.	"	200	200
"	"	50	
Chester Oil Co.	Chester, Pa.	2-50	100
Jas. Irving & Son	"	260	150
Lincoln M'f'g Co.	"	150	115
J. W. Bowman	Oxford, Pa.	100	100
Reynoldsville tannery	Reynoldsville, Pa.	75	86
Westtown school	Westtown, Pa.	2-250	670
York Haven Paper Co.	York Haven, Pa.	150	90
R. D. Wood & Co.	Florence, N. J.	75	75
Lowenthal & Morganstern	Jersey City, N. J.	50	50
Little Falls bleachery	Little Falls, N. J.	75	75
May's Landing Water Power Co.	May's Landing, N. J.	100	100
Ivanhoe Paper Co.	Paterson, N. J.	100	105
Chippewa Lumber Co.	Chippewa, Mich.	50	50
R. D. Pike	Bayfield, Wis.	100	100
Steamer "Yemassee"	Clyde's line	50	50
" "San Domingo"	"	50	50
" "Cherokee"	"	50	50
U. S. Steamer "Omaha"	U. S. Navy	100	160
" "	"	150	150
New York "Sun"	New York	2-300	600
Ducey & Backus Lumber Co.	Brandon, N. Y.	100	100

Schedule C—Continued.

Name.	Location.	Dy. capacity.	Lights inst'l'd.
C. Klinck	East Buffalo, N. Y.	100	103
W. S. C. Wiley	Catskill, N. Y.	150	150
H. H. Pawling	Hagaman's Mills, N. Y.	150	175
Union Knitting Co.	Hudson, N. Y.	150	150
Mohawk Valley Knitting Co.	Mohawk, N. Y.	150	90
Stockport cotton mills	Stockport, N. Y.	75	56
Ticonderoga paper & pulp mill	Ticonderoga, N. Y.	100	100
Augur & Putoz	Paterson, N. J.	75	40
Wm. Meisch	"	100	150
H. H. Freeman	"	150	150
John Hand	"	150	150
Phœnix M'f'g Co.	"	2-400	1,000
Helvetia silk mills	"	150	125
George Morlot	"	400	400
Hamil & Booth	"	600	600
275 Tallman & McFadden	Philadelphia, Pa.	50	50
Steamer "Brandywine"	"	50	35
Hardesty Bros.	Columbus, O.	50	50
Michigan Shingle Co.	Muskegon, Mich.	75	90
H. J. Smith	Pompton, N. J.	75	75
Morris Tasker & Co.	New Castle, Del.	50	50
E. L. Tunis & Co.	Baltimore, Md.	75	75
Nat. Consumers' Meat Co.	"	75	75
W. P. Harvey & Co.	"	50	60
W. L. Stork	"	300	351
Columbian iron works	"	50	50
Record paper mills	Elkton, Md.	150	100
Portner's brewery	Alexandria, Va.	50	60
Eastern lunatic asylum	Williamsburg, Va.	2-250	520
Griffin M'f'g Co.	Griffin, Ga.	100	117
Southern Brewing Co.	New Orleans, La.	50	150
M. D. Harter	Mansfield, O.	150	130
Salem Wire Nail Co.	Salem, O.	150	150
Yaeger Flour Mill Co.	Carlinville, Ill.	35	40
Grand Missouri hotel	Kansas City, Mo.	300	325
Commonwealth Co.	Topeka, Kan.	150	150
R. L Stillman	Minneapolis, Minn.	2-200	500
S. C. Hall Lumber Co.	"	100	60
Shotwell, Clerihew & Lothman	"	2-200	400
Pettit, Christian & Co.	"	75	125
" " "	"	50	
P. H. Kelly Mercantile Co.	St. Paul, Minn.	100	110
Boxrud Bros.	Red Wing, Minn.	100	100
Baker & Akely mill	Muskegon, Mich.	50	56
The Ducey Lumber Co.	"	50	53
Doherty & Baars Lumber Co.	Menominee, Mich.	100	100
S. Wright	Pownal, Vt.	100	60
John Paul	La Crosse, Wis.	100	100
Pardo, Velasco & Co.	New York city	50	50
Pratt institute	Brooklyn, N. Y.	800	800
H. D. Klots	New York city	50	53
J. N. White	Jaffray, N. H.	200	191
Perry, Mason Co.	Boston, Mass.	150	150
Episcopal rectory	New Decatur, Ala.		
Saxon Worsted Co.	Franklin, Mass.	100	100
F. P. Jones & Co.	Buffalo, N. Y.	75	75
The Glasgow Co.	So. Hadley Falls, Mass.	400	455
T. K. Earle M'f'g Co.	Worcester, Mass.	200	210
Page Box Co.	Cambridgeport, Mass.	250	160

Schedule C—Continued.

Name.	Location.	Dy. capacity.	Lights inst'l'd.
P. T. Noyes	Lancaster, N. H.	50	50
H. J. Libbey & Co.	Madison, Me.	400	600
"	"	200	
The New York Wire Cloth Co.	York, Pa.	250	110
Oscar Seebus' silk mill	Paterson, N. J.	250	158
Louis E. Harrower	Amsterdam, N. Y.	150	150
The Ocean Oil Co.	Bayonne, N. J.	75	50
Julius Kayser & Co.	Brooklyn, N. Y.	100	110
Citizens' Pub. Co.	"	200	200
Richardson Silk Co.	Belding, Mich.	200	200
Walworth M'f'g Co.	Boston, Mass.	100	100
276 The Steam & Power Co.	"	100	50
Mass. homeopathic hospital	"	150	160
T. D. Cook & Co.	"	250	250
John H. Ghade	Canastota, N. Y.	50	50
Sulzback & Wenige	College Point, N. Y.	75	75
W. B. Durgin	Concord, N. H.	75	80
Decatur Land & Furnace Co.	Decatur, Ala.	2-250	600
The Ivens & Son Machine Co.	"	50	50
C. W. Joseph	"		14
L. B. Wheeler	"		12
Ross & Baker	Dover, N. J.	250	250
C. E. Meding	East Mauch Chunk, Pa.	250	250
Queen City El. L't Co.	Gadsden, Ala.	400	250
Park central hotel	Hartford, Conn.	150	180
J. J. Murdodk	Leicester, Mass.	50	50
A. H. Postel	Lansdowne, Pa.	30	30
Gaynor Electric Co.	Louisville, Ky.	200	200
Southern Woolen M'f'g Co.	"	100	100
Beargrass Woolen M'f'g Co.	"	75	50
C. I. Hood & Co.	Lowell, Mass.	250	183
Plankington house	Milwaukee, Wis.	150	150
Schermerhorn building	New York city	200	200
Electric club	" "	150	150
Putnam Nail Co.	Neponset, Mass.	60	50
William Hill	Newark, N. J.	100	120
George W. Phillips	Norwich, Conn.	30	30
Wilder & Co.	Olcott Falls, Vt.	250	200
C. F. Hazeltine	Philadelphia, Pa.	2-400	800
John Lang	"	100	100
The Wm. Strange Co.	Paterson, N. J.	2-600	1,500
Pelgram & Meyers	"	50	50
Crescent M'f'g Co.	"	50	50
Phœnix mill	Phœnix St., Md.	150	150
American Screw Co.	Providence, R. I.	300	300
Murray hall	Pablo Beach, Fla.	250	383
The Okonite Co.	Passaic, N. J.	300	400
Levi P. Morton	Rhinecliffe, N. Y.	200	250
Grimshaw Bros.	Reading, Pa.	500	500
Racine Hardware Co.	Racine, Wis.	100	100
Portland block	St. Paul, Minn.	300	300
George L. Henzel	San Francisco, Cal.	30	25
St. John's Woodworking Co.	Stamford, Conn.	150	150
Stephen W. Barker	Schaghticoke, N. Y.	200	200
Westbrook M'f'g Co.	Saccarappa, Me.	300	300
Rubsam & Horrman	Stapleton, S. I.	200	145
Peerless Buttonhole Att. Co.	Tyler City, Conn.	75	75
Wild & Devereaux	Utica, N. Y.	200	50
House of Representatives	Washington, D. C.	300	300

Schedule C—Continued.

Name.	Location.	Dy. capacity.	Lights inst'l'd.
A. N. Woolson	Watertown, Conn.	75	75
Read & Lovatt	Weatherly, Pa.	200	200
Frederick Dale	Whitehall, N. Y.	200	250
Harvard mills	Watertown, Mass.	75	50
T. F. Hunter & Co.	Eley, Vt.	50	50
Louis De Jonge & Co.	Tompkinsville, S. I.	100	220
Do.	"	200	
277 Phœnix Brewing Co.	Louisville, Ky.	200	200
Steamer "City of Chester"	Wilmington, Del.	75	66
Overman Wheel Co.	Chicopee Falls, Mass.	100	100
The Wm. Strange Co.	Paterson, N. J.	400	400
H. Mosebach & Co.	Philadelphia, Pa.	225	183
F. L. Fowler	"	50	50
American Bap. Pub. Co.	"	200	200
North & Judd M'f'g Co.	New Britain, Conn.	150	150
Wellesley college	Wellesley, Mass.	100	64
John D. Lewis	Providence, R. I.	50	60
Forestdale M'f'g Co.	Forestdale, R. I.	400	370
J. N. White	Winchendon, Mass.	250	216
Nonotuck Silk Co.	Florence, Mass.	400	542
Do	"	100	208
Thos. A. Watson	Weymouth, Mass.	100	75
Henry Adams	Rockville, Conn.	50	50
Nelson D. White	Winchendon, Mass.	300	316
Valpay & Anthony	Leominster, Mass.	100	100
Wm. Knowlton & Sons	West Upton, Mass.	400	355
Do.	"		45
Grosvenor & Richards	Saugus, Mass.	100	82
Goodyear Metallic Rubber Shoe Co.	Naugatuck, Ct.	100	80
Am. Tool & Machine Co.	Boston, Mass.	50	50
Van Lieu & De Forrest	New York city(shunt wound)	15	15
Hockanum Co.	Rockville, Conn.	100	100
Wm. H. Coffin	Boston, Mass.	400	200
Crescent City Brewing Co.	New Orleans, La.	150	150
Whitten, Burditt & Young	Boston, Mass.	250	204
John C. Nichols	" (S. W.)	100	21
Henry N. Furbish	Berlin Falls, N. H.	300	175
Nashville Woolen Mills Co.	Nashville, Tenn.	250	200
N. Y. Tarter Co.	Brooklyn, N. Y.	300	250
Richard Sauer M'f'g Co.	Baltimore, Md.	75	75
N. Y. Lumber & Woodworking Co.	Batavia, N. Y.	200	128
Carter & Rogers	Lebanon, N. H.	200	160
Charles Heap	Boston, Mass.	30	30
C. D. Morse & Co.	Millbury, Mass.		
F. A. Kennedy & Co.	Cambridgeport, Mass.	300	328
A. S. Blumenthal	New York city	400	300
Charles Cooper & Co.	"	50	50
Ara Cushman & Co.	Auburn, Me.		800
Day Cortage Co.	East Cambridge, Mass.		50
City mills	Franklin, Mass.		250
Heywood Bros.	Gardner, Mass.		700
Moody, Estabrook & Anderson	Nashua, N. H.		400
New Haven Carriage Co.	New Haven, Conn.		200
Sperry & Barnes	"		200
Strong, Barnes & Hart	"		100

Schedule C—Continued.

278 *Direct Incandescent Plant Sold by Thomson-Houston Electric Co., Chicago, Belonging to Sawyer-Man Co.*

Central stations.

Manitou Electric Light Co.	Manitou, Colo.	800 lights.
Wahoo Electric Light Co.	Wahoo, Neb.	300 "
Larned Electric Light Co.	Larned, Kansas	300 "
Dodge City Elec. L't & S. H. Co.	Dodge City	800 "
Grinnell Electric Light Co.	Grinnell, Iowa	300 "
Boulder Electric Light Co.	Boulder, Colo.	400 "
Hastings Electric Light Co.	Hastings, Neb.	600 "
Harrington city	Herrington, Kas.	400 "
Conneaut Electric Lighting Co.	Conneaut, Ohio	300 "
Missoula Elec. L't & P. Co.	Missoula, Mon.	300 "
Ft. Scott Elec. L'ght & P. Co.	Ft. Scott, Kan.	800 "
Bismark Elec. & P. Co.	Bismark, Colo.	500 "
Greeley Electric Light Co.	Greeley, Colo.	800 "

Isolated plants.

Beham & Moffatt	Kansas City, Mo.	50 "
R. O. Meldrum	Mt. Clemens, Mich.	50 "
W. T. Randall	Beloit, Wis.	50 "
Wells & French Car Co.	Chicago, Ills.	400 "
C. M. Henderson & Co.	Dixon, Ills.	300 "
Mrs. N. L. Dousman	Prairie du Chien, Wis.	50 "
Mahoning Valley Iron Co.	Youngstown, O.	200 "
Union depot	Chicago	800 "
Warder Grand opera house	Kansas City, Mo.	800 "
Deshler Lumber & Planting Co.	Ark. City, Ark.	150 "
Crown mills	Minneapolis, Minn.	150 "
Columbia mills	Minneapolis, Minn.	75 "
St. Cloud mills	Minneapolis, Minn.	75 "
Kohler, Haysen & Stehm	Sheboygan, Wis.	50 "
No. Chicago Rolling Mill Co.	So. Chicago	150 "
Argus building	Fargo, Dak.	200 "
New Sherman hotel	Fargo, Dak.	200 "
Lone Brewing Co.	San Antonio, Texas	50 "
Galaxey mills	Minneapolis, Minn.	100 "
Merrill Lumber Co.	Merrill, Wis.	100 "
Parrott Silver & Copper Co.	Butte, Mont.	100 "
Clough Bros. & Kingore	E. Minneapolis, Minn.	75 "
Farwell, Osman & Kirk	St. Paul, Minn.	150 "
Chicago City Railway Co.	Chicago	150 "
Hall & Buells	Bay Mills, Mich.	75 "
Hendricks Ice Machine Co.	Los Angeles, Cal.	50 "
Panoptican building	Chicago	400 "
Hotel St. Louis	Duluth, Minn.	550 "
Hotel Fresno	Stockton, Cal.	300 "
Brooks & Ross	Wausau, Wis.	50 "
Menominee Bay Shore Lumber Co.	Menominee, Wis.	
A. L. Hill	Faribault, Minn.	75 lights.
Marinette Lumber Co.	Marinette, Wis.	100 "
T. H. Rhodes	Los Angeles, Cal.	50 "
Holmes' hotel	Minneapolis, Minn.	250 "
Saginaw M'f'g Co.	Saginaw, Mich.	150 "
Rust Owen Lumber Co.	Drainwood, Wis.	250 "
Leroy Payne	Chicago	100 "
Milwaukee Ship Yards Co.	Milwaukee, Wis.	100 "

Schedule C—Continued.

279 Compensating plants.

Monroe Electric Light Co.	Monroe, Wis.	500 lights.
Buwalda Bros. & Co.	Pella, Iowa	300 "
Northern Light Co.	Wahpeton, Dak.	300 "
Belding Bros. &. Co.	Belding, Mich.	250 "
Fargo Incandescent Lighting Co.	Fargo, Dak.	500 "
James Bell	David City, Neb.	300 "
		2,150 lights.

(End of Schedule C.)

Correct.

(Signed) C. H. BARNEY,
For Sawyer-Man Elec. Co.
"
J. P. FELTON,
For Thomson-Houston El. Company.

SCHEDULE "D."

Plants Installed by the Thomson-Houston Electric Co. for which Westinghouse Apparatus was Bought by that Company, and Consequently Thomson-Houston Company has Right to Renewals.

Excelsior Electric Co.	Port Huron, Mich.
C. Fogarty	Junction City, Kansas.
F. W. Stock	Hillsdale, Mich.
Champion Electric Light Co.	Springfield, O.
Electric Light & Power Co.	San Antonio, Texas.
Mountain City Electric Light Co.	Altoona, Pa.
People's Electric Light Co.	York, Pa.
Hudson Electric Light Co.	Hoboken, N. J.
Aurora Electric Light Co.	Aurora, Ill.
Palmer Electric Co.	Palmer, Mass.
Sioux City Electric Light Co.	Sioux City, Ia.
Salina Gas & El. L't Co.	Salina, Kan.
Troy Electric Light Co.	Troy, N. Y.

280 Know all men by these presents: That,

Whereas, prior to the date hereof, there have existed between the Consolidated Electric Light Company, hereinafter called the Consolidated Co., a New York corporation; the Sawyer-Man Electric Company, hereinafter called the Sawyer-Man Company, a New York corporation; and the Thomson-Houston Electric Company, hereinafter called the Thomson-Houston Company, certain contracts, licenses and agreements, including the following, to wit:

Agreement between the Consolidated Company and the Thomson-Houston Company, dated May 29th, 1885.

Agreement between the Consolidated Company and the Thomson-Houston Company, dated October 29th, 1886.

Contract between the Thomson-Houston Company and the Sawyer-Man Company, dated October 29th, 1886.

Agreement between the Consolidated Company and the Sawyer-Man Company and the Thomson-Houston Company, dated August 23rd, 1887.

And whereas, said companies have agreed to terminate, cancel and annul all said contracts and agreements, except as hereinafter specifically stated, and there has been executed, in lieu thereof, an agreement of license and contract between said Consolidated Company and said Thomson-Houston Company, of even date herewith;

Now, each of said companies, the Consolidated Company, the Sawyer-Man Company and the Thomson-Houston Company, hereby releases and discharges the others from all liability and obligation under said contracts, or any of them, and said Consolidated Company and said Sawyer-Man Company release and discharge said Thomson-Houston Company from all liability and obligation under any and all contracts heretofore existing between them and either of them and said Thomson-Houston Company, and said Thomson-
Houston Company in like manner releases and discharges
281 said Consolidated Company and said Sawyer-Man Company from all obligations and liability under any and all contracts existing between it and them and either of them prior to the date hereof, except that said contracts shall remain in force as to the following agreements only:

1st. The agreement of said Consolidated Company and said Thomson-Houston Company each to indemnify and protect the other against all claims for infringement brought for the manufacture, use or sale of apparatus made under its patents prior to the date hereof, and for which it shall have received compensation in royalty or otherwise from the other, prior to the date hereof, shall remain in full force as to apparatus manufactured and sold prior to this date.

2d. The license heretofore existing from the Thomson-Houston Company to the Consolidated Company to make, use and sell incandescent lamps, switches, and cut-outs for use in incandescent lighting under all patents owned, acquired or controlled by said Thomson-Houston Company prior to the date hereof, and the license from the Consolidated Company to the Thomson-Houston Company to make, use and sell machines, lamps and other apparatus for arc lighting under all patents owned, acquired or controlled by said Consolidated Company prior to the date hereof, shall both continue for the term of said patents, respectively.

3d. Accounts relating to business done between said Thomson-Houston Company and said Sawyer-Man Company with relation to the sale of apparatus from the one to the other and the division of the business between the two as provided by the contracts above named, shall be settled within thirty days from the date hereof, and such payments shall be made by one to the other as shall be found due upon the settlement of said accounts according to said contracts.

4th. Royalty shall be paid to the said Consolidated Company by said Thomson-Houston Company on lamps sold up to date hereof at the
rate provided in said contract. Except as provided in para-
282 graphs numbers 1 to 4 above written, said Consolidated Company and said Sawyer-Man Company, severally release and discharge said Thomson-Houston Company from all claims and

demands that they or either of them have or can have against the said Thomson-Houston Company for matters or things occurring prior to the date hereof, and said Thomson-Houston Company releases and discharges said Consolidated Company and said Sawyer-Man Company from all claims or demands that it has or can have against either of them for matters or things occurring prior to the date hereof.

In witness whereof, said companies have caused their corporate seals to be hereunto affixed this 1st day of December, 1888, duly attested by their respective presidents and secretaries.

(Signed) THE CONSOLIDATED ELECTRIC LIGHT CO.,
[SEAL.] By HUGH R. GARDEN.

Attest: HENRY C. DAVIS, *Sec'y.*

(Signed) SAWYER-MAN ELECTRIC COMPANY,
[SEAL.] By GEO. WESTINGHOUSE, JR., *President.*

Attest: GEO. LEWARS, *Sec'y.*

(Signed) THOMSON-HOUSTON ELECTRIC COMPANY,
By C. A. COFFIN, *V. P. & Treas.*

Attest:
[SEAL.] E. I. GARFIELD, *Sec'y.*

In consideration of the premises the Thomson-Houston Electric Company hereby assents to the lease of the Consolidated Electric Light Company to the Westinghouse Electric Company,
283 dated October 10th, 1888, and agrees that it will not directly or indirectly do any act or thing which will conflict with such assent.

Witness the seal of said Thomson-Houston Electric Company, attested by C. A. Coffin, its vice-president and treasurer, the day and year aforesaid.

(Signed) THOMSON-HOUSTON ELECTRIC COMPANY,
By C. A. COFFIN,
[SEAL.] *V. P. & Treas.*

EXHIBIT E.

United States Circuit Court, Southern District of New York.

THE EDISON ELECTRIC LIGHT CO.
vs.
THE CONSOLIDATED ELECTRIC LIGHT CO. } In Equity. No. 3468.

STATE OF NEW YORK,
City and County of New York, } *ss:*

Eugene S. Pike, being duly sworn, deposes and says:

I reside in Chicago, Ill.; am a director of the World's Columbian Exposition, and was a member of the committee of grounds and buildings at the time bids were taken and the contract let for the incandescent electric lighting.

Bids were received from the Thomson-Houston Company, the Edison General Company, the Brush Electric Company and
284 the Fort Wayne Electric Company, each of which was in round numbers about $1,800,000, and one other bid from Charles C. Lockstadt, which was for about $450,000. Owing to the inability of the lowest bidder to furnish a satisfactory bond for the performance of the contract, and the apparent attempt on the part of the other bidders to obtain an extortionate price, all bids were rejected and new bids taken. The bid of the Westinghouse Electric and Manufacturing Company was the lowest, it being about $400,000. The committee awarded the contract to said company, although statements were made to the committee, and various members of it, by representatives of the Edison Electric Company and the Thomson-Houston Electric Company that a certain decision which had been rendered sustaining Mr. Edison's lamp patent would shortly be affirmed by the appellate court, as they fully expected, and in that event the Westinghouse Company would be prevented by injunction from manufacturing incandescent lamps, and could not procure them except from the Edison Company; and the Edison Company would certainly refuse to furnish any incandescent lamps for use in connection with apparatus of the Westinghouse Company for the lighting of the World's Fair. The committee was advised by its counsel that there was no ground for believing that the courts would permit the Edison Company to cut off the supply of lamps in the manner threatened by it.

EUGENE S. PIKE.

Subscribed and sworn to before me this 13th day of October, 1892.

LORENZO C. CARUANA,
[SEAL.] *Notary Public, Kings Co.*

Certificate filed in New York Co.

285 EXHIBIT F.

"Electricity" for Sept. 28, page 151.

The Trust and Central Stations.

The theory that by the centralization of numerous concerns, in any line of business, under one competent management, economy of operation, and hence reduced prices to consumers, may result, is correct. But how does it work in actual practice? We submit that no such combination ever failed to charge all it could get; and if reduced prices resulted, it was with the one object in view, of forcing weaker competitors to the wall.

The electric trust is proving, as rapidly as it dare do so, that it is no exception to this rule.

The first instance of its greediness to attract public notice was in the matter of the well-known World's Fair contract. Supposing that it had everything its own way, it put in a bid upon which the profit, if it had been accepted, would have gone a long way towards paying interest on the large amount of water in its stock. But it overreached itself and lost the contract. The daily press took the matter up, and it attracted wide attention. The Westinghouse Company got the contract at about $1,300,000 less than the bid of the trust. The carrying out of this contract is now well under way, and it has proved to be a profitable one. The conspiracy to mulct the World's Fair management reacted at once very decidedly against the trust.

Cities and towns about to put in electric-railway plants were put on their guard, and it has been impossible, up to the present time, for the trust to secure any substantial increase in prices for railway equipment. The choicest contracts placed since the World's Fair episode have gone to outside concerns.

But something must be done. Interest must be earned on
286 the millions of added stock and bonds, or the public would not bite, and the scheme would collapse. Hence, attention was turned to the central stations. Here was thought to be a field where more money could be squeezed out. Of course, the scheme must be carried out cautiously, and in a way not to stir up discussion.

There had been a slight intimation of the plan previous to the Toronto convention. Many delegates attended that meeting, hoping to have a declaration of intentions from the officers of the trust. They were disappointed. "No general rule was to be adopted, but each case was to be taken up by itself."

The relations existing between the parent Edison Company and the local illuminating companies have always been friendly in the extreme. Their interests have been identical, and there never has been any friction worth mentioning.

In the matter of prices on machinery and equipment the local companies have always been treated fairly, even if not liberally. However, the price has been high enough, and the central-station

business, although generally profitable, has not been by any means a gold mine. One of the earliest stations, in a thriving Massachusetts city, has not up to the present year been able to pay any dividends.

The price to the licensee central-station men from the Edison Company on all machinery was uniformly about sixty off from list price. The latter varied slightly from time to time.

The Thomson-Houston Company has never issued a list price, nor announced a uniform discount to its licensee companies. The price was generally whatever it needed to be to sell the goods, and in some cases the central-station men secured better terms than the local Edison companies, and in others not so favorable.

The arrangements between these local concerns and the parent companies are well understood by our readers.

287 The time has now come when, if possible, the existing basis on which machinery is supplied, established in part by contract and in part by precedent, must be upset if possible, and the trust must get more money out of the central stations. How is this to be brought about? It cannot be done except by the substitution of a new contract for the original form. Accordingly, such a contract has been prepared—or rather, contracts, as there are two forms. At the present time not more than twenty of these have been sent out. They are not submitted to central-station men for careful consideration and approval, for the reason that a careful consideration by any intelligent man would result in an emphatic disapproval.

Even the agents of the trust are not to be trusted with them. They are to be talked up in a general way, filled out in the office of the attorneys of the trust, and then rushed out for signature.

For the benefit of our constituency we give an outline of the points which these contracts cover, and of the one main point which they do not cover. They are known as—

Forms C and D,

and instructions are to work D first, if possible.

Form C contains the following clauses:

"The licensee agrees and covenants that it will at all times hereafter admit the validity of the letters patent now or hereafter owned by the licensor or under which it has or shall have a license."

"The licensee agrees not to violate or infringe said letters patent or any of them, nor contest either the validity of the same or the scope of the claims thereof, or the titles of the licensor thereto, nor aid or encourage others in so doing."

The licensee further agrees not to allow any apparatus to be used outside of the territory specified in the contract.

288 The licensee agrees not to sell or transfer apparatus without the consent of the licensor.

The licensee gives permission to the licensor to manage all suits for infringement of patents.

The licensee agrees to prosecute its business diligently.

"The licensee agrees that in its said business it will not use any apparatus not purchased by it directly from or with the consent of the licensor."

"The licensor agrees to sell such apparatus as may be needed by the licensee for use in its said territory for electric lighting at the lowest current prices of the licensor to its other licensees under this form of contract and license for similar apparatus purchased in like quantities."

Form D contains virtually the same provisions with the following important additions:

The licensor gets a certain percentage of the capital stock or bonds, or both, of the licensee company.

The licensor agrees not to sell to others, "so long as the licensee shall faithfully perform and observe all covenants and conditions of the contract."

"The licensor reserves the right to sell, in said territory, apparatus for isolated lighting as distinguished from central-station purposes, and also all apparatus for lighting cars, car-houses and stations of street or other railway companies."

"All statements of facts and representations, covenants and guarantees made by agents of the licensor shall be merged in this contract, and all modifications thereof and supplements thereto shall be binding upon the licensee from the date of the execution of the same respectively by it, and shall be binding upon the licensor only from the date of the counter-signature of the same respectively by the president or vice-president of the licensee."

We have gleaned from the four legal-cap pages of brevier type the main points of these new contracts. It will be readily seen that, when once signed as a substitute for the contracts under which the licensee companies are now operating, the price heretofore
289 guaranteed to Edison licensee companies, and known as the shop price, will be abolished. The only price guarantee that the licensor gives to the licensee is that the latter shall have the benefit of the same price which is given to other licensees which are unfortunate enough to sign this contract.

We would like to ask, How is Mr. Insull in Chicago, for instance, to know what Brother Marks, of Philadelphia, pays for his machinery? Are such matters commonly made public among business men?

It looks to an outsider very like a game of "catch as catch can;" in other words, "Ilk ane for himsel', and God for us a'."

Of course, if the central-station man could get his customers to sign an ironclad contract to use only light supplied from his current, and at the lowest prices given to other users of that current, he might with safety attach his signature to these contracts, but under no other conditions.

How many central-station men are ready to commit business suicide?

290 EXHIBIT G.

General Electric Co., "Thomson-Houston system," "Edison system."

Principal western office:

173 & 175 Adams street, Chicago.

Branch offices:

St. Louis,	Port Huron,	New Orleans,	Dallas,
Kansas City,	Detroit,	Milwaukee,	Omaha.

Proposal.

For —— plant.

CHICAGO, ILL., —— —, 189–.

To —— ——
(Hereinafter called the purchaser),
——.

The General Electric Company (hereinafter called the company) proposes to furnish an electric-light plant, as per the following specifications, for the sum hereinafter named.

The proposal is made subject to the following conditions, unless such conditions are hereinafter specifically changed or modified:

It is understood and agreed that in accepting this proposal the purchaser covenants and agrees that purchaser will not violate or infringe the company's letters patent, or any of them, nor
291 contest the validity of the same, or of the company's title thereto. In case any suits are brought against the purchaser alleging infringement of letters patent by the use of the hereinafter-described electric-lighting apparatus, or any portion of the same, furnished by the company, the company agrees to manage and defend said suits at its own cost and expense and to pay all sums that purchaser shall be adjudged or decreed to pay in such suits as damages, profits or costs of suits; provided that the infringement shown in such suit or suits does not result from the use of parts manufactured and furnished by the company; and provided, also, that notice of the service of process in any such suit and of any action taken by the complainant therein, be given in writing without delay by the purchaser to the company, and that the purchaser's agents and officers and employés shall give all needed information, assistance and authority in any suit so far as possible.

The necessary power (including shafting and belting) is to be furnished and applied to dynamo pulleys by purchaser.

As each dynamo is provided with a suitable base frame, the company will not be required to furnish brick or stone foundations for same.

The company will not be held responsible for work done or apparatus furnished by others.

The purchaser is to designate location of dynamos, lamps and switch-board before work is begun, and is to pay extra for any changes made in the location thereof after same have been placed, and for any work performed, or apparatus or material furnished in addition to that herein specified.

The purchaser is to allow the work to proceed without interruption until finished, and to reimburse the company for any expense incurred by reason of delays in starting the plant and completing the work that are not chargeable to the company.

The purchaser is also to assist in the care and safe keeping of all apparatus and material delivered until the plant is fully paid for, and to make good any loss to the company occasioned by careless or malicious destruction or removal of same by purchaser's employés.

Only apparatus acquired from the company will be used by the purchaser in the same circuit with that furnished hereunder.

The plant shall be considered as having been started, as affecting terms of payment, when the dynamo is first put into operation, and all expenses connected with the actual operating of the plant shall be borne by the purchaser.

Page 1. A.

(Here follows specification of electrical apparatus, &c.)

292 *Price, Terms, etc.*

Price, dollars.
Terms, (payable in Chicago).

The title to the plant shall not pass from the company to the purchaser until it is fully paid for, and the purchaser agrees to execute and give to the company all legal documents necessary to effect this. In case of deferred payments by notes the title to the plant shall not pass from the company until such notes have matured and have been settled in full.

The foregoing proposal is subject to the approval of an executive officer of the General Electric Company, or its western manager, and is not binding upon said company until so approved, is subject to change unless accepted by purchaser within fifteen days from date, and if so accepted is the agreement between said company and purchaser as it exists at date of approval, and it is understood and agreed that all previous communications between said parties, either verbal or written, contrary to the provisions hereof, are hereby withdrawn and annulled, and no modification of this agreement shall be binding upon either of the parties unless such modification shall be in writing signed by both parties.

GENERAL ELECTRIC COMPANY,
By —— ——.

Approved —— —, 189–.

GENERAL ELECTRIC COMPANY,
By —— ——.

Acceptance.

—— —, 189–.

General Electric Company, Chicago, Illinois:

Your proposal as above is hereby accepted at the prices, terms, and subject to the conditions named therein.

Page — (final). F.

293 United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY. } In Equity.

STATE OF PENNSYLVANIA, *County of Allegheny,* } *ss:*

Lemuel Bannister, being duly sworn, deposes and says:

I reside at Pittsburg, Pennsylvania, and am vice-president and general manager of the Westinghouse Electric and Manufacturing Company. The said company is a Pennsylvania corporation, and is one of the largest manufacturers of electrical apparatus in this country, its business in this line being, as I am informed and believe, second only to that of the General Electric Company. As vice-president and general manager of the said Westinghouse Company I have direct charge, among other things, of its sales, and the salesmen and agents report directly to me; and I am also brought constantly into contact with the customers of the company and with the purchasers of electrical light and power apparatus generally. I have held the said office for about two years, and for some years prior to that time was intimately associated with the managers of the company, and was familiar with its affairs, and with the general electric light and power business, as carried on by the said company and its competitors; and, since said time, have taken pains to keep myself as fully informed as possible in regard to the said general business.

294 From the reports which have been made to me by the agent and salesmen of the Westinghouse Company, and the statements which have been made to me by many of its customers and persons to whom it has endeavored to sell its apparatus, I believe it to be the fact that the General Electric Company intends, in case injunctions are granted in pursuance of the recent decision of the circuit court of appeals restraining other manufacturers, and especially the Sawyer-Man Electric Company, from making incandescent lamps to use such exclusive control of incandescent lamps for the purpose of securing a monopoly of the manufacture and sale of dynamo machines and all the other electrical apparatus used for incandescent lighting and for harassing and intimidating the customers of the Westinghouse Company, who have already purchased lighting plants for it. Numerous instances have been reported to me by the salesmen of the Westinghouse Company, in which the

agents of the General Company have called the attention of central-station companies, and others contemplating the purchase of electric-light apparatus to the Edison lamp case pending before the court of appeals, and stated that a decision in favor of the patent was expected shortly, and that in that event it would be impossible to obtain a supply of incandescent lamps for use with any generating apparatus except that made by the General Electric Company. Various customers of the Westinghouse Company and users of its apparatus have also informed me that the agents of the General Company have represented to them that their supply of incandescent lamps would be cut off as soon as injunctions were obtained under a favorable decision of the court of appeals, unless they would agree to make all future purchases of dynamo machines and other electrical apparatus from the General Company, and agree not to contest the validity or the scope of the claims of any of the patents of the General Company covering dynamo machines and a great variety of other electrical apparatus as well as incandescent lamps. I have
295 been shown by a customer of the Westinghouse Company a form of contract containing very stringent provisions to the above effect, which, I am informed and believe, has been tendered by the agents of the General Company to many of the central-station lighting companies using Westinghouse generating apparatus, under threats that if they did not accept it their supply of incandescent lamps would be cut off and their business ruined. The said form of contract was substantially the same in its tenor as that referred to in the article published in "Electricity" for September 28, 1892, of which a copy is annexed to the affidavit of Mr. Westinghouse herein. I do not feel at liberty to give the names of customers from whom this information has been obtained, because it was given to me in confidence, and such customers are particularly averse at the present time to incurring the special hostility of the General Company, since their plants would be of little or no value and their business would be stopped if they could not secure a supply of incandescent lamps for renewals.

The business of the Westinghouse Company, and of the various organizations owned or controlled by it, consists mainly in the manufacture and sale of dynamo machines and electrical apparatus other than incande-cent lamps, but its entire business, so far as incandescent-lighting apparatus is concerned, is dependent upon a proper supply of incandescent lamps suitable for use with its apparatus, since no purchasers could be found for dynamo machines or other apparatus used for incandescent lighting unless they could be assured of a supply of lamps suitable for use with such apparatus. The said company has not for some years past been engaged in the manufacture and sale of lamps, the incandescent lamps for use with its apparatus having been supplied by The Sawyer-Man Company, the defendant, under an agreement to that effect, and it is dependent at present upon the factory of the defendant for supplies of incandescent lamps for itself and its customers, and the said com-
296 pany and its customers would be very greatly injured in their

general business if a supply of suitable lamps were cut off or limited so that the demand could not be fully met.

I am familiar with the separable form of incandescent lamps referred to in the affidavit of Mr. Westinghouse herein, and in the advertisements of the Westinghouse Company annexed to Mr. Herrick's affidavit, forming a part of the complainant's moving papers. From the tests which have been made of the said lamp, I believe that it is an efficient and durable lamp, and entirely suitable for use with the generating plant manufactured by the Westinghouse Company. I am advised, also, by the counsel of the company, that the said lamp is substantially different from the Edison lamp covered by the patent in suit, and does not in any way infringe the said patent. To my knowledge, preparations have been made with great diligence, for several months past, for manufacturing the said lamp in a commercial way, and much special machinery has been designed and constructed for that purpose. Owing to its peculiarities of construction, the said lamp cannot be manufactured in a commercial way by the hand processes used for making the present form of lamp, and special machinery is necessary, the design and construction of which necessarily requires a considerable time. The work on this machinery has been pushed as rapidly as possible, and, although unexpected delays have occurred during the past week or two, I feel confident, from the progress that has been made, that lamps will be turned out in sufficient quantities by the first of January to supply all demands, and that by the first of December sufficient quantities of the lamps can be made to supply some considerable part of the users of Westinghouse apparatus. It would, in my opinion, work a great and irreparable injury to the business of the Westinghouse Company in the sale of dynamos and other apparatus if its supply of Sawyer-Man lamps were cut off before it could
297 procure sufficient quantities of the new lamps to supply its customers, especially in view of the business policy which has been pursued by the General Electric Company and the general apprehension existing among the customers of the Westinghouse Company that the supply of incandescent lamps necessary for operating their plants may be cut off entirely unless they yield to the demands of the General Company in other matters.

LEMUEL BANNISTER.

Subscribed and sworn to before me this 7th day of November, 1892.

JAMES WM. SMITH,
Notary Public.

[SEAL.]

United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

STATE OF NEW YORK, *City and County of New York,* } *ss:*

William H. Browne, being duly sworn, deposes and says:

I reside at the city of Brooklyn, and am general manager of the United Electric Light and Power Company. The said company is engaged in the business of supplying electric lights, both arc and incandescent, from central stations in the city of New York,
298 and is operating three large central stations, from which at the present time about 50,000 incandescent lamps are supplied for public and private consumers.

Among the buildings supplied with incandescent lights from the stations of the said United Electric Light and Power Company are the United States post-office and court-house building, where about 3,300 lights are used: U. S. custom-house and naval office; 27 of the principal hotels in the city; many of the principal stores, including the Stewart retail store, which has 3,700 lights; several of the principal theatres, among which are Daly's, Palmer's, Casino, Academy of Music, and a large number of other consumers.

The stations and plant operated by the said company represent a cash investment of upwards of $3,000,000. Substantially all of the business done by said company consists of incandescent lighting, and the greater part of its investment is in property which can only be used in connection with its incandescent-lighting business.

The incandescent-lighting apparatus operated by the said company has been purchased from the Westinghouse Electric Company, and is all of the type of apparatus known as the alternating system, requiring as a rule 50-volt incandescent lamps. The incandescent lamps used by the said company have been procured from the Sawyer-Man Electric Company and the United States Electric Lighting Company. In order to operate the said incandescent lighting apparatus at all, it is absolutely necessary to supply lamps to the customers of the company for renewal when the same are required; and, if the supply of proper lamps should be cut off for any reason, it would be necessary for the company to suspend operations as soon as the stock of lamps it might have on hand was exhausted. If the incandescent-lighting part of the business of said company were cut off, it would make it necessary to suspend the business of arc lighting, because that branch of the business could not be run by itself at a profit. In case lamps could not be procured for operating
299 the incandescent-lighting plants owned by the said company, the said plants would be substantially without value; because the apparatus is not adapted for any other use, and the investment represented by the said apparatus would be practically a total loss. By far the greater part of the investment in central-station plants

now operated by the said United Light and Power Company was made more than three years ago.

Other companies besides the United Electric Light and Power Company and the Edison Illuminating Company are operating central-station plants in this city. Among these are the Manhattan Electric Light Company, which, as I am informed and believe, is operating about 20,000 incandescent lights from central stations; the East River Electric Lighting Company, operating about 5,000 incandescent lights, and the Mount Morris Electric Light Company, operating about 15,000 incandescent lamps. From my knowledge of the business, I should say that the cash investment represented by the stations of said companies would not be less than $3,000,000; and, if the said companies could not procure incandescent lamps for renewals, precisely the same considerations would apply as in the case of the United Electric Light and Power Company, and the said investment would be substantially valueless.

I should say further that I have caused a test to be made of various makes of incandescent lamps, with the result that the fifty-volt lamps furnished by the Edison Company are entirely unfit for our circuits. We have been disposed to use them because of their greatly lower price, but we have been convinced that the use of such lamps as were furnished us by the Edison Company would almost ruin the efficiency and economy of our service.

The companies with which I am connected are not interested in the sale of apparatus or in the exploitation of patents. Our only interest in the premises is that we should have an opportu-
300 nity of obtaining for the use of our customers reliable and satisfactory lamps.

WM. H. BROWNE.

Subscribed and sworn to before me this 7th day of November, 1892.

BENJAMIN BARKER, JR.,
[SEAL.] *Notary Public, N. Y. Co.*

United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY. } In Equity.

STATE OF NEW YORK,
City and County of New York, } *ss:*

Frederick Darlington, being duly sworn, deposes and says:

I reside at New York city, and am and have been for about three years chief electrician of the United Electric Light and Power Company and the United States Illuminating Company, both of which companies are engaged in the business of furnishing electric light and power from central stations in New York city.

I have been connected with electric lighting and the use and manufacture of electric-lighting apparatus for about six years, and am familiar with the various kinds of electrical apparatus
301 used in this country, and especially with most of the forms of incandescent lamps in use.

The United Electric Light and Power Company and the United States Illuminating Company are operating from their central stations in this city not far from 50,000 incandescent lamps.

The companies by which I am employed are furnishing electric illumination to customers in New York city at the fixed rate of about one cent per lamp per hour for sixteen-candle-power lamps, paying for all the lamps consumed in the service.

Under the instruction of the manager of the above companies at various times during the last two years, I have made examinations to determine the best lamps for economically producing the light required by the service. I have conducted series of tests with a view of determining upon the most efficient lamp for use in the service. In order to arrive at the data necessary for this determination, I had the companies purchase a number of makes of 50-volt 16-candle-power incandescent lamps, among which were the Sawyer-Man lamp, the Perkins lamp and the Edison lamp.

In conducting the experiments it was found that the Edison 50-volt lamp was so utterly unsatisfactory to give the results required that it was discontinued from the test after the preliminary examination of the lamp, which showed that the light of the lamp was very poor; that the mechanical construction of the lamp was very poor, and that the life of the lamps was so very short that they would be unfit for our service. In general the appearance of the Edison 50-volt lamps was so poor and the light given by them so weak that we were satisfied that none of our customers would be willing to accept the light which we would supply by use of the Edison lamps; consequently, the test of the Edison lamp was discontinued at this point; and this was done notwithstanding the fact that one of the great advantages offered by the Edison Company was the unusually low price at which their lamp could
302 be bought, which would enable us to make the renewals much more frequently at a given expense than by using other and more satisfactory makes of lamps, which cost from twenty per cent. to forty per cent. more than the Edison lamps.

I do not desire to make any general statement regarding the Edison lamp now for sale upon the market, other than the 50-volt Edison lamp, such as is required for use upon most of our circuits. I have no hesitation in saying that, if the companies with which I am connected were confined to the use of the 50-volt lamp which we have purchased from the Edison Company, the economy and efficiency of the service would be greatly reduced.

I believe that other companies using the 50-volt alternating current circuits have had similar experience to ours in using the Edison lamps. For instance, on Saturday, July 19, 1891, I visited the city of Pittsfield, Massachusetts, and found that the superintendent of the Electric Illuminating Company there had been con-

ducting a series of tests of various makes of incandescent lamps, including the Edison lamp, the result of which was that the 50-volt lamps furnished by the Edison Company were wholly unfit for their use, and that, notwithstanding their lower price, the service obtained by them was so poor that the customers of the Pittsfield Electric Lighting Company had almost entirely ceased to buy them, and the manager of the company had advised the customers that the lamps would not be satisfactory for their use, and they were using other and more expensive lamps, among which were the Sawyer-Man, the Perkins and the Swan lamps.

FREDERICK DARLINGTON.

Subscribed and sworn to before me this 3d day of November, 1892.

CHARLES J. MARSH,
Notary Public, Kings Co.

[SEAL.]

Certificate filed in N. Y. Co.

303 United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

STATE OF MARYLAND, *City of Baltimore*, } *ss:*

Edwin F. Baker, being duly sworn, deposes and says: I reside in Baltimore, Maryland, and am general superintendent of the Brush Electric Company of Baltimore City. This company is engaged in the business of furnishing incandescent and arc electric illumination from central stations in that city, and now, with the companies under its control, does nearly all of the central-station electric lighting and power business of that city.

I have been connected with the central-station electric lighting for upwards of six years, and am fully familiar with all forms of apparatus and devices used in the business.

The company with which I am connected is not interested in the sale of lamps or in the exploitation of any system of patents, but simply in the business of furnishing electric illumination and power. Together with the companies which it controls, it uses incandescent electric-light apparatus of several types, including those manufactured by the Westinghouse Electric Company and the Edison Company, although most of its incandescent electric-lighting business is done by the use of the system known as the West-
304 inghouse alternating current system. The said company is now furnishing current to upwards of 22,000 incandescent lights from its central stations in Baltimore.

Under its practice, this company does not, except in a few in-

stances, furnish its customers with incandescent lamps, but merely furnishes them with current, and allows them to buy any type of lamp which they wish. Many kinds of incandescent lamps are for sale in Baltimore, including the Edison lamps, the Sawyer-Man, Thomson-Houston, Perkins, Shaefer and Swan lamps, and several others, and all of these varieties of lamps have been used to a greater or less extent by the customers of deponent's company.

The sale of the Edison lamps has been pushed more vigorously in Baltimore than that of any other lamp in the market, and has been offered at considerably lower prices than any other lamp, and the customers of deponent's company have been free to use Edison lamps, and in many cases have attempted to use them; but the result of the use of the Edison lamps by the customers of deponent's company has almost uniformly been that they did not prove satisfactory upon the alternating current 50-volt circuits. With the exception of new installations, where the customers had no opportunity of testing the relative merit of the lamps, the use of the Edison lamps has been almost completely abandoned among the customers of deponent's company in Baltimore, notwithstanding that they can be purchased at from twenty to forty per cent. lower prices than the other lamps in the market.

In case the customers of the Brush Electric Company of Baltimore should be prevented from obtaining other lamps than the Edison lamps, the efficiency of the service would be greatly reduced, and great hardship would result.

Deponent further says, from his knowledge of incandescent lamps, that the failure of the Edison lamps to work on the 50-volt alternating current circuits is not due to any accidental defect in the lamps,
but to the manner in which they are manufactured, and to
305 their general characteristics. The Edison lamps, not in exceptional cases, but almost always, give, upon the 50-volt circuits used by the deponent's company, much less illumination, have a much shorter life, and are much more liable to break than such lamps as manufactured by the Sawyer-Man Company, the Perkins Company, and other companies making lamps on the same general type; so that the result of the exclusive use of the Edison 50-volt lamps would be very great injury to the economy and efficiency of the incandescent service in the city of Baltimore, and loss to deponent's company.

The part of the stations and plant of deponent's company devoted to incandescent lighting represents a cash investment of not less than four hundred thousand dollars ($400,000), and this would be substantially a total loss if it and its customers were cut off from a supply of proper lamps for renewals, as it would be impossible to make any use of said plant without lamps.

Neither deponent nor his company have any interest whatever in the sustaining of any patents, or having their customers buy lamps from one company in preference to another. Their only desire is that they shall have an opportunity of buying lamps adapted for economical and reliable use upon their system of electric lighting.

EDWIN F. BAKER.

Subscribed and sworn to before me this 5th day of November, 1892.

FELIX R. SULLIVAN,
[SEAL.] *Notary Public.*

306 United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

STATE OF MASSACHUSETTS, *County of Suffolk,* } *ss:*

Frederick P. Barnes, being duly sworn, deposes and says:

I reside at Newton, Mass., and am manager New England agency at Boston for the Westinghouse Electric and Manufacturing Company, and have general charge of the sales in New England of apparatus manufactured by that company. Since the organization of the General Electric Company during the present year, the competition I have had to meet has been almost exclusively that of the said company and the various companies owned or controlled by it, and particularly the Thomson-Houston Company and the Edison Company. During the past six months many of the customers of the Westinghouse Company, and various persons to whom I have endeavored to sell incandescent-lighting apparatus manufactured by the Westinghouse Company, have informed me that the agents and salesmen of the General Electric Company had represented to them that it would not be safe for them to purchase Westinghouse apparatus because a favorable decision in the Edison lamp case was expected shortly from the appellate court; that when such decision was obtained the General Company would have a monopoly
307 of incandescent lamps and would refuse to sell or supply any incandescent lamps for use with Westinghouse dynamos or any other generating plant except that manufactured by companies controlled by the General Company, and that it would therefore be impossible to use the Westinghouse apparatus and it would be substantially valueless.

I have also been informed that in various cases the agents of the General Electric Company have sought to induce central-station companies using the Westinghouse apparatus to sign a contract admitting the validity of all the patents of the General Electric Company and agreeing to purchase all dynamos and other apparatus from it in the future by threats that if such contract was not accepted the supply of incandescent lamps for renewals would be cut off as soon as the decision referred to was obtained. I do not feel at liberty to give the names of my informants in regard to these matters, as they gave me the information in confidence and stated that they did not wish to incur the special hostility of the General Electric Company by having their names used.

FREDERICK P. BARNES.

Subscribed and sworn to before me this 2d day of November, 1892.

CHARLES E. BEALE,
[SEAL.] *Notary Public in and for said County of Suffolk.*

308 United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

STATE OF PENNSYLVANIA, *County of York*, } *ss:*

L. A. Marshall, being duly sworn, deposes and says that he is president of the Westinghouse Electric Light, Heat and Power Company of York, Pa.; that the said company recently required certain electrical apparatus, among other things a 100 H. P. electric generator for incandescent lighting, and procured bids for the same from various manufacturers of electric apparatus, and that, during the negotiations for the purchase of this apparatus, the representative of the General Electric Company (or of the Edison General Electric Co., or of the Thomson-Houston Electric Co., which, as deponent understands, are companies controlled and operated by the said General Electric Company) stated, in substance, to deponent and others associated with him in the said local company at York, that, in case they purchased the generating apparatus of the Westinghouse Electric and Manufacturing Company the York company would be unable to procure incandescent electric lamps for use therewith for the reason that a suit was pending against the Westinghouse Company upon the Edison incandescent electric lamp patent which would be decided in favor of the Edison Company, and that thereafter the Edison Company would not sell incan-
309 descent lamps to the York company unless for use with apparatus manufactured by the Edison Company or the General Electric Company.

L. A. MARSHALL, *Pres't.*

Subscribed and sworn to before me this 2d day of November, 1892.

GEORGE B. KRALER,
[SEAL.] *Notary Public.*

Circuit Court United States, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

STATE OF PENNSYLVANIA, *County of York*, } *ss:*

G. W. Sharp, being duly sworn, deposes and says that he is superintendent of the Westinghouse Electric Light, Heat and Power Company, of York, Pa.; that the said company recently required certain electrical apparatus, among other things a 100-horse-power electric generator for incandescent lighting, and procured bids for the same from various manufacturers of electrical apparatus, and that during the negotiations for the purchase of this apparatus, the representatives of the General Electric Company (or of the Edison General Electric Company, or of the Thomson-Houston
310 Electric Company, which, as deponent understands, are companies controlled and operated by the said General Electric Company) stated in substance to deponent and others associated with him in the said local company at York, that in case they purchased the generating apparatus of the Westinghouse Electric and Manufacturing Company the York company would be unable to procure incandescent electric lamps for use therewith for the reason that a suit was pending against the Westinghouse Company upon the Edison incandescent electric lamp patent which would be decided in favor of the Edison Company, and that thereafter the Edison Company would not sell incandescent lamps to the York company unless for use with apparatus manufactured by the Edison Company or the General Electric Company.

GEO. W. SHARP.

Subscribed and sworn to before me this 2d day of November, 1892.

GEORGE B. KRALER,
Notary Public.

[SEAL.]

311 United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

STATE OF NORTH CAROLINA, *County of Mecklenburg*, } *ss:*

D. A. Tompkins, being duly sworn, deposes and says as follows:

That he is a resident of Charlotte, N. C.; that he is engaged in the selling of steam-engines, and also electrical apparatus manufactured by the Westinghouse Electric and Manufacturing Company of Pittsburgh, Pa.; that in the pursuit of his occupation he

was lately at Hillsborough, Texas, and made a proposition to build a plant there, using Westinghouse electrical apparatus. In the discussion of his proposition, the parties proposing to purchase the plant said that a representative of the Edison Electric Company had made a bid for furnishing the plant, and that they expected him to come back to Hillsborough again. These parties stated that this representative of the Edison Company threatened that if they purchased Westinghouse apparatus they would be unable to procure incandescent electric lamps to use in connection therewith, as the Edison Company had succeeded in establishing the validity of its patent upon incandescent lamps, and that the Edison Company would not furnish lamps for use with Westinghouse apparatus.

312 This statement was made to deponent by Mr. Stroud, who, as deponent understands, is the president of a bank in Hillsborough, and was one of the persons who proposed to put it in the plant referred to.

Deponent further states that, in the general competition of selling electrical apparatus, he has frequently been informed by persons with whom he has been in negotiation that they hesitated to increase their plants or put in new plants for incandescent lighting because of threats made by agents of the Edison Company to the effect that users of Westinghouse apparatus would not be able to get any incandescent lamps to use with their apparatus when the Edison lamp patent was established.

D. A. TOMPKINS.

Subscribed and sworn to before me this 31st day of October, 1892.

J. M. MORROW,
[SEAL.] *Clerk Superior Court Mecklenburg County, North Carolina.*

United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

STATE OF PENNSYLVANIA, *County of Allegheny,* } *ss:*

L. W. Robinson, Jr., being duly sworn, deposes and says that he is a resident of Sewickley, Pa., and is an agent of the Westinghouse Electric and Manufacturing Company of Pittsburgh, Pa.; that on or about the 5th day of September, 1892, deponent was at McConnellsville, Ohio, in the interest of the Westinghouse Electric and Manufacturing Company for the purpose of selling to the McConnellsville-Malta Electric Company, an incandescent electric lighting plant, as well as certain other electrical apparatus.

313 Deponent further states that there was also present at McConnellsville one George B. Edgar, known to him to be an agent of the

Central Thomson-Houston Electric Company of Cincinnati, who was endeavoring to sell to the McConnellsville-Malta Electric Company electric apparatus of the manufacture of the Thomson-Houston Company of Lynn, Mass.

Deponent further states that during a conversation at which was present, among others, Will. E. Farra, one of the stockholders of the McConnellsville-Malta Electric Company, one of the party informed the said George B. Edgar that the suit brought by the Edison Electric Company against the United States Electric Lighting Company, under the Edison incandescent lamp patent, had been decided in favor of the Edison Electric Company. This statement brought up the question of the policy of the Thomson-Houston and Edison Companies which he represented, and said Edgar thereupon stated that his companies would not sell incandescent electric lamps for use with any other apparatus than that of their manufacture.

Deponent further states that of his own knowledge the said Central Thomson-Houston Electric Company works in conjunction with the Cleveland office of the Edison General Electric Company, and, from information which has been given him by the agents of the said companies whom he has met in competition on various occasions, he believes both of the said companies to be branches of the General Electric Company.

L. W. ROBINSON, JR.

Subscribed and sworn to before me this 8th day of November, 1892.

JAMES WM. SMITH,
Notary Public.

[SEAL.]

314 United States Circuit Court, Southern District of New York

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

STATE OF OHIO, *County of Morgan,* } *ss:*

William E. Farra, residing in McConnellsville, Ohio, being duly sworn, deposes and says as follows:

That he is interested in an electric lighting company in McConnellsville supplying incandescent lights from a central station; that the said company having occasion recently to purchase electrical apparatus for an extension of its plant, he, with others, met representatives of various electrical manufacturing companies, and conducted negotiations with them for the purchase of such apparatus; that early in October of this year he had a conversation on this subject with the agent of the General Thomson-Houston Company of Cincinnati, Ohio, one of the branches of the General Electric Company, and, in the course of such conversation, he was informed by the said agent that his company would refuse to sell incandescent

electric lamps in the future for use with other generating apparatus than that furnished by his company.

WILLIAM E. FARRA.

Subscribed and sworn to before me this 2d day of November, 1892.

GEORGE H. BLACK,
[SEAL.] *Notary Public.*

Com. expires April 24th, 1894.

315 United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT CO. and EDISON GENERAL ELECTRIC CO.
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

STATE OF PENNSYLVANIA, *County of Allegheny,* } *ss:*

Calvin B. Humphrey, being duly sworn, deposes and says:

I reside at Athens, Ohio, and was for about a year prior to June 1, 1892, employed as a salesman by the Edison General Electric Company at Kansas City, Missouri. On or about the first of June the sale of the apparatus of the said company was put into the hands of the General Electric Company, which also took charge of the sale of Thomson-Houston apparatus, and I continued in the employment of the said General Electric Company as a salesman until the first of last month. I annex hereto, and mark "Exhibit A," a copy or a general circular from the central-station department of the said General Electric Company which was received by me, and, as I am informed and believe, by the agents of said company generally, at about the time when the same bears date.

CALVIN B. HUMPHREY.

Subscribed and sworn to before me this 2d day of November, 1892.
[SEAL.] JAMES WM. SMITH,
Notary Public.

316 EXHIBIT A.

CHICAGO, *June 20th*, 1892.

#231.

Circular to Agents.

(Strictly confidential.)

DEAR SIR—One of the most direct results arising from the consolidation of the Thomson-Houston and Edison Companies' interests will probably be the decision of the lamp suits, thus giving to the General Company the entire control of the manufacture of incandescent lamps.

We are desirous of taking advantage of this situation immediately, and to bring every station using Westinghouse apparatus to a realization of the position in which they will be placed, in using Westinghouse apparatus, by the control which the General Company will have of the lamp patents.

Suits are now pending in the United States courts by the result of which, it is probable, that the exclusive patent right on the incandescent lamps will be given to the Edison Company. With the result, an injunction will probably be served against every company using lamps other than that of the Thomson-Houston and Edison make; and it is probable that judgments can be secured against such companies for the payment of large royalties upon the lamps that they are using or have used of other systems. In the case of large stations this liability will mean a great deal of money to the central-station companies

Companies using the Westinghouse apparatus are apparently protected by the Westinghouse Company, by guarantees from that company which on the face of them presume to protect against money damage that could be brought against their plant on account of infringement of patents. When it is considered, however, 317 that such guarantees have been given to more than 300 companies, and that the liability of the Westinghouse Company in all of these cases would amount to several million dollars, it is evident that a guarantee without some definite security, in such a case, is of little value.

In cases where this contract is referred to we have suggested that sureties be demanded in the shape of personal bonds from the Westinghouse Company, or deposit of cash, to guarantee freedom from liability.

We suggest now to our agents, that they approach each station using Westinghouse apparatus with a proposition to free them from the liability by the exchange of the apparatus they are using for that adopted and used by the allied interests of the general company; this will, of course, in every case be the Thomson-Houston or Fort Wayne. In order that this may be done with the least possible expense to the company involved, and still that they may be protected under our patents and under the united credit of the Thomson-Houston and Edison Companies, we have suggested the following very favorable terms, merely protecting ourselves from actual loss, and relying for our profits upon future sales of apparatus, if our apparatus is adopted.

We propose to offer a Westinghouse station to exchange their apparatus for the Thomson-Houston or Fort Wayne, light for light, at $1.25 per light bonus. In case the party making the exchange is willing to make an addition to their present generating capacity, we can offer even better terms. An exchange of apparatus may be made, light for light, free of charge, and the additional apparatus that they purchase will be charged up so that the amount of apparatus in all furnished by us shall net our company not less than $1.25 per light; this refers to dynamo, exciter and station equipment only. The transformers need not be exchanged, as the West-

inghouse transformers will operate in connection with the Thomson-Houston dynamo satisfactorily.

It is advisable to induce an exchange of sockets, and
318 for this we would suggest that you offer to furnish sockets free of charge in exchange, if the party will at the same time give an order for three incandescent lamps at the regular price of 60 cents for each socket exchanged; or will agree to purchase lamps for one or two years exclusively of the Thomson-Houston Company.

It is of importance that agents open a vigorous campaign for business of this character. Further and fuller information will be furnished as to localities, terms, &c.

Yours very truly,

GENERAL ELECTRIC COMPANY, CENTRAL STATION LIGHTING DEP'T,
By JNO. L. MARTIN, *Manager.*

United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

STATE OF PENNSYLVANIA, *County of Allegheny,* } *ss:*

Joseph C. Hubner, being duly sworn, deposes and says as follows: That he is a resident of Pittsburgh, Pa., and is an agent of the Westinghouse Electric and Manufacturing Company; that in the discharge of his duties he visits electric-ligh-ing plants,
319 especially throughout the State of Ohio; that on the second day of November, 1892, he visited the Freemont Electric Light Company, of Freemont, Ohio, for the purpose of selling an alternating-current incandescent-lighting generator to the said company; that he then met Mr. A. V. Baumann, an officer of the said Freemont Company, and in his endeavor to sell the generator he was met with the statement that a Mr. Ryan, a representative of the Cincinnati branch of the Thomson-Houston Electric Company, or the General Electric Company, had that same day asserted to said Baumann that, if the Freemont Company purchased Westinghouse generating apparatus, the Westinghouse Company would have no lamps to furnish them, and that, therefore, the machine would be useless to the Freemont Company, as they could not obtain lamps to operate with it.

JOS. C. HUBNER.

Subscribed and sworn to before me this fourth day of November, A. D. 1892.

JAMES WM. SMITH,
Notary Public.

[SEAL.]

320 United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

STATE OF NEW YORK,
City and County of New York, } *ss:*

Samuel A. Duncan, being duly sworn, deposes and says:
I was one of the counsel for the defendant in the suit of the Edison Electric Light Company against the United States Electric Lighting Company on the Edison lamp patent No. 223,898, referred to in complainant's moving papers herein, and took part in the argument before Judge Wallace on the settlement of the interlocutory decree in that case. The printed paper hereto annexed, and marked "Proceedings on settlement of decree in United States case," was prepared from a copy of the stenographer's minutes of the proceedings on the settlement of the said decree, and I believe the same to be a correct account of what took place.

SAM'L A. DUNCAN.

Subscribed and sworn to before me this 9th day of November, 1892.

[SEAL.]

ROBERT F. GAYLORD,
Notary Public (11), *N. Y. Co., N. Y.*

321 *Proceedings on Settlement of Decree in United States Case.*

Circuit Court of the United States, Southern District of New York.

THE EDISON ELECTRIC LIGHT CO.
vs.
THE UNITED STATES ELECTRIC LIGHTING CO.
} In Equity. No. 3445.

Before Hon. W. J. Wallace, circuit judge.

NEW YORK, *July* 22*d*, 1891.

Appearances.

For the complainant: Eaton & Lewis, solicitors. Richard N. Dyer, Grosvenor Loorey, Sherburne Blake Eaton, of counsel.
For the defendant: Kerr & Curtis, solicitors. Samuel A. Duncan, Leonard E. Curtis, Elihu Root, of counsel.

Mr. DUNCAN: I received the note from your honor in relation to the Edison suit, a copy of which I handed to the counsel upon the other side. We are here under the suggestions contained in that note to see what arrangement can be made to suit the convenience of counsel and the court.

322 Mr. LOWREY: I have been brought here from Canada where I was rusticating, and at your honor's direction and disposal

for the completion of this matter, of which I believe notice has been given. We come here and are ready to go on at this moment, if your honor's other engagements permit, or to wait until some very near day. If your honor is ready, we are ready now. We did not understand from the communication whether you had not some positive engagement this morning.

The COURT: I will hear you at two o'clock.

Mr. LOWREY: At two o'clock.

Mr. DUNCAN: I would say this, your honor: We appreciate the importance of an early hearing in this matter, but if it can stand over until to-morrow it will greatly suit our convenience, and for this reason: Your honor is perfectly aware who appeared for the defendant associated with myself—Mr. Wetmore and Mr. Betts. Mr. Wetmore has found it necessary to take passage for Europe and cannot be here, and Mr. Betts' relations to this whole matter in former times were such that he says it will be embarrassing for him to appear in connection with the settlement of this decree. That has rendered it necessary to associate with us other counsel, and the opportunity for consultation has been so exceedingly brief, owing to the other engagements of counsel, that if we can have until to-morrow it will be deemed by us a great favor.

The COURT: I am off on my own vacation at present.

Mr. DUNCAN: We trust not to keep your honor here after to-morrow.

The COURT: I came here to-day because I thought I could get through with these matters to-day.

Mr. DUNCAN: I might say also in that connection that we have had a form of decree submitted to us, and we desire to submit a counter-form, as to which I suppose the burden would rest upon us.

The COURT: It seems to me the mere question of settling the decree should not require an adjournment, and I think you ought to be able to go on at two o'clock.

323 Mr. DUNCAN: There are some pretty grave questions involved.

The COURT: I will set it down for two o'clock.

2 P. M.

The COURT: Gentlemen, you may proceed.

Mr. LOWREY: If the court please, I move the settlement of the decree in the case of The Edison Electric Light Company *vs.* The United States Electric Lighting Company. Our friends upon the other side handed to us this morning a form of decree which they had drawn. It is alternative, and we find it to conform with ours, except in one very essential respect, and so we have redrawn another decree which may be considered as handed up by us. It is like theirs, except that there is omitted the provision for the filing of a bond and the continuation of business.

Our friends have also permitted us to see some affidavits which they have prepared with a view of inducing your honor to suspend the operation of the writ of injunction on account of public inconvenience. I am satisfied that they have moved a little before the

time in that respect, and that your honor will be able to pass that question over until a future occasion.

We are here with a judgment about to be entered and with a decision against the United States Electric Lighting Company, and that company alone. It is in proof in the record, and, if it were not in proof in the record, we are amply borne out by the affidavits which are offered to-day in saying that the United States Electric Lighting Company is not a manufacturer of lamps. It ceased to be a manufacturer of lamps some two or three years ago. It is now a purchaser of lamps from the Sawyer-Man Company, and it supplies those lamps to its customers. I have not been of the opinion that we could restrain these other manufacturing companies except in special proceedings directed to them. It was not our idea that any order in this case would be effective to that end, and since the public does not get any lamps from the manufacture of the United
324 States Electric Lighting Company, and since other companies not yet enjoined can supply the public along with the Edison Electric Light Company, it would seem that this occasion is not the proper one upon which to consider whether the public interest requires that the full enjoyment of the Edison Electric Light Company's right under your honor's decision should be withheld from them for a time. I say this in order to save my friends some labor.

Now, we had in our order provided that the injunction should run against the defendant, its servants, agents and confederates. We found that the word "confederates" was not in the order drawn by our friends, and, as we do not expect to get hold of anybody by this proceeding, we have dropped that word out.

We think, therefore, that there is no occasion for your honor even to consider whether, when the facts are urged in defense of somebody differently situated, you will suspend the operation of the writ of injunction. We think, whatever you may do at that time and in the interest of that person, there is no occasion for your honor here to consider whether you will allow a bond to be entered.

The COURT: Have you any authorities as to a stay pending the final decree?

Mr. DUNCAN: Yes, I will be able to cite cases to your honor directly in point. There are cases that we will refer to where, in the settlement of the decree, the decree went for an accounting, but not for an injunction.

Mr. LOWREY: At any rate, it is not a matter of essential importance as to when is the proper time to do that.

Mr. ROOT: We may go fishing in different places, and it may be inconvenient hereafter.

Mr. LOWREY: You remember the little boy who was seen by the minister sitting on the bridge on a Sunday with his legs dangling over the water and a fishpole outstretched over the stream. The minister said: "My boy, don't you know it is wicked to catch fish on Sunday?" The little boy answered: "Who's a-catchin'
325 any fish?" Therefore, you do not always get fish, Brother Root. Some will get fish and some won't.

Now, I have before me the affidavit of Mr. George W. Hebard, the president of the United States Electric Lighting Company, which starts out by saying that "the defendant commenced the manufacture of incandescent-lighting apparatus, including incandescent lamps, in the summer of 1880, and has continued such manufacture down to the present time."

That might be understood to be a statement that they are now making lamps. We knew that was not the truth, and, indeed, we find that corrected on the same page, where he says that:

"Up to the summer of 1889 the defendant manufactured its incandescent lamps at its factory, at Newark, N. J., but, owing to certain business arrangements which had been made shortly prior to that time between the defendant and the Westinghouse Electric Company, it was then found advantageous to suspend the operation of such lamp factory for the time being, and have its lamps made under contract by the Sawyer-Man Electric Company at the factory of the latter company in this city."

And further the affidavit states:

"The defendant's factory at Newark, however, has not been dismantled, but has been kept standing fully equipped with tools and machinery and ready to start up at any time it may be found desirable, and the superintendent and skilled workmen of the defendant were transferred to the Sawyer-Man factory, where they are available to the defendant for re-employment in its Newark factory at any time."

Your honor will see that they are not now making lamps. An order restraining them, therefore, from carrying on the business would have no necessary effect upon the public, because the lamps are made by other persons who stand competent, until they are restrained, to supply them.

Mr. DUNCAN: How about the selling of those lamps?

Mr. LOWREY: Of course, you must not sell them. Now,
326 we had prepared an affidavit by the president of the Edison Electric Light Company, and I will leave it with your honor, in which we endeavored to make the same thing clear. Mr. Herrick says that he is informed and believes that the defendant no longer manufactures incandescent lamps.

The situation, therefore, is that the making of lamps, which, being restrained, might under some circumstances be an inconvenience to the public, is not carried on by the defendant. The suggestions contained in their affidavits, therefore, that there are reasons why the public ought not to be cut off from that supply of lamps which they have heretofore had from their company, is premature. We expect to have to come to your honor by and by to have one of these manufactures restrained, and then we expect to meet all these reasons, and they are serious reasons—we do not think they will be when we get done with them, but *prima facie* they are serious reasons—but not in favor of this defendant.

Mr. DUNCAN: This is the form of decree that has been proposed (handing paper to the court), and the only paragraph which seems now to be in question is the one where the pencil mark is drawn.

Mr. LOWREY: We will hand to your honor what is the same in our form with that left out, and the closing part which we did not think necessary. We understand that it goes without saying that the court may modify its order at any time before final decree (handing paper to the court).

Mr. DUNCAN: I will endeavor not to occupy too much time, but, to supplement the statement already made by Mr. Lowrey in regard to what is being done by the United States Electric Lighting Company, I desire to call attention briefly to the history of the operations of that company as set forth in Mr. Hebard's affidavit.

That company has established something like 1,050 different incandescent electric-lighting plants in different parts of the
327 United States, having a lamp capacity of something like 350,000 lamps, and employing a little army of men to keep the plants in operation. In regard to the great majority of those plants, the United States Electric Lighting Company in installing them came under obligation by contract that it would keep them supplied with lamps. We assume—without knowing, except on general principles—that such action will be had on the part of the Edison Electric Light Company, (and it is strongly hinted at immediately now by Mr. Lowrey), that, if an injunction goes against the United States Electric Lighting Company, the Edison Company will apply for injunctions against all manufacturers of lamps that infringe the Edison patent. If so, it will be impossible for the United States Electric Lighting Company to meet the contracts that it has entered into with its various subcompanies. There would be involved in that a very serious grievance to the public, as we apprehend, in this case.

To illustrate by the United States Illuminating Company in the city of New York, which is now being operated in conjunction with the United Electric Light and Power Company. That company is running about 45,000 lights in the city of New York. It is being operated upon what is known as the "alternating" system, which was introduced by the Westinghouse Company about the year 1886, at a time when it was supposed, under the law as then interpreted, that the patent now in suit had expired. Over that system the Westinghouse Company has, through its various patents, full control. The plants of the Edison Company are being operated upon what is known as the "direct-current" system. Our affidavits go to show that the Edison Company is not prepared to make and furnish the reliable and satisfactory 50-volt lamps that are capable of successful use upon these alternating systems that are adapted for 50-volt lamps. The reason for that is somewhat a matter of surprise. A reason is given by two or three witnesses, namely, that in order to make lamps of that voltage, which is relatively a
328 very low resistance, it is necessary to employ the hydrocarbon treatment by the use of attenuated gas, but whether by the use of that or a carbonaceous liquid is immaterial; but the patents covering that process are owned and controlled by the United States Company, subject to certain contract arrangements between that company and the Westinghouse Company; so that it

is impossible for the Edison Company to-day to resort to that method of manufacturing lamps. And your honor will not have forgotten that Mr. Edison, in his testimony, makes a great point of the special mode of manufacturing lamps which has been adopted by his company.

Moreover, these alternating-current systems reach into territory that is not covered by the Edison plants at the present time.

If, therefore, it should happen, through the granting of an injunction that it would be impossible for these different plants to which I have referred to secure a supply of suitable, practical, satisfactory lamps, the result would be the destruction of all the property that is invested in these plants.

Now, in view of the quiescence, if I may use that term—I am justified, I think, in using the stronger term acquiescence—of the Edison Company, during the period from the summer of 1880, when the United States Company was publicly known to be actively engaged in the development of an incandescent-lighting business, down to the time the suit was brought, and if we have regard to the large amount of capital that was invested, we believe that if the bill in this case had set forth those facts a demurrer to the jurisdiction of the court would have lain. The bill did not set forth those facts. We could not take the question of jurisdiction by a demurrer; and we have the authority of Mr. Walker, in his excellent work on patents, that it is exceedingly doubtful whether a plea based on an assertion of laches of that character would be a proper pleading, and would not be an exceedingly dangerous one. At any rate, we did not seek to oust the jurisdiction of the court on that ground,
329 but the equitable consideration remains, nevertheless, that in view of the relations established between the parties by the known manufacture by the United States Company, by the large investments that it made—I will say, and I think the record justifies me in this, absolutely without protest—there is no equity in the proposal now made by the complainant that the court shall issue an injunction.

In support of that proposition I would refer your honor to the case of McLoughlin *vs.* The Railway Company in 21 Fed. Rep. That was a case where Judge Brewer dismissed the bill on demurrer, the sole ground being laches. In that case the laches had continued for thirteen years. Here it is only five years.

Mr. LOWREY: And is explained.

Mr. DUNCAN: The delay is not explained. As Mr. Walker says: "To guard against the defense of laches being started on the hearing, the evidence ought to show whatever excuse the complainant can interpose."

And having that in mind, doubtless, the former president of the Edison Company was called to the stand and asked to give his explanation of the delay. He said, very frankly, that the United States Company had been a bustling concern and had made a great deal of noise. He said that the officers of the Edison Company had consulted with counsel and with experts, and that the advice of counsel—not all the counsel, but "of counsel"—and experts had

been to bring a suit, but the business men thought a different policy advisable, and they concluded not to institute any suit against this company until the business had assumed larger proportions so as to be a real commercial rivalry. Those are not the exact words, but the substance. And what was the condition of things when the suit was brought? Mr. Hebard tells, in his affidavit, that if the suit had been brought promptly when the infringement first began, and if it had been prosecuted promptly, and such a decision reached upon the merits as has now been reached, he does not think
330 their investment in this branch of the business would have exceeded $50,000. In point of fact, at the time the suit was brought their aggregate investment had reached two and a half millions of dollars, three-fourths of which had to do with this particular branch of the business of that company, namely, with incandescent electric lighting.

Now, the excuse that was offered for that delay I have already brought to the attention of the court, and it seems to us that the case is almost on all fours with the old and leading case of Wyeth *vs.* Stone, decided by his honor Judge Story, where the delay had existed for a somewhat longer period than in the present instance, but the excuse for delay was very like what is presented at the present time. Not to take overmuch of the time of the court, I trust I may be pardoned if I read certain extracts from the decision of Judge Story. They are of so much value that they have been incorporated bodily into the treatise on patents by Mr. Curtis.

In the case in which that decision was rendered the patent was granted in 1829, and was for an ice-cutting machine. The owners of the patent employed their attention in the cutting of ice for the foreign trade, and that was the only use to which they put it. The defendant's use of what was regarded ultimately by the court as an infringing mechanism consisted in the cutting of ice for the domestic trade.

Judge Story says:

"If for a series of years the patentee acquiesces without objection in the known public use by others of his invention, or stands by and encourages such use, such conduct will afford a very strong presumption of such an actual abandonment or surrender. *A fortiori*, the doctrine will apply to a case"—that is, the doctrine of laches—"where the patentee has openly encouraged or silently acquiesced in such use by the very defendant whom he afterward seeks to prohibit by injunction from any further use; for in this way he may not only mislead them into expenses, or acts or
331 contracts against which they might otherwise have guarded themselves, but his conduct operates as a surprise, if not as a fraud, upon them."

Then, after citing some authorities, the learned judge goes on:

"There is certainly very strong evidence in the present case affirmative of such an abandonment or surrender, or at least of a deliberate acquiescence by the patentee in the public use of his invention, by some or all of the defendants, without objection for several years."

Then, coming down to the excuse that was offered for the delay: "It is no just answer to the fact so stated that, until 1839, the business of Wyeth, or rather of his assignee, the plaintiff Tudor, was altogether limited to shipments in the foreign ice trade, and that the defendant's business, being confined to the domestic ice trade, did not interfere practically with his interest under the patent. The violation of the patent was the same, and the acquiescence the same, when the ice was cut by Wyeth's invention, whether the ice was afterwards sold abroad or at home. * * * It is the acquiescence in the known user by the public without objection or qualification, and not the extent of the actual user, which constitutes the ground upon which courts of equity refuse an injunction in cases of this sort. The acquiescence in the public use, for the domestic trade, of the plaintiff's invention for cutting ice, admits that the plaintiff no longer claims or insists upon an exclusive right in the domestic trade under the patent; and then he has no right to ask a court of equity to restrain the public from extending the use to foreign trade or for foreign purposes. If he means to surrender his exclusive right in a qualified manner, or for a qualified trade, he should at the very time give public notice of the nature and extent of his allowance of the public use, so that all persons may be put upon their guard, and not expose themselves
332 to losses or perils which they have no means of knowing or averting during his general silence and acquiescence.

"The cases which have been alread ycited fully established the doctrine that courts of equity constantly refuse injunctions, even where the legal right and title of the party are acknowledged, when his own conduct has led to the very act or application of the defendant of which he complains and for which he seeks redress. And this doctrine is applied, not only to the case of the particular conduct of the party towards the persons with whom the controversy now exists, but also to cases where his conduct with others may influence the court in the exercise of its equitable jurisdiction. Under such circumstances, the court will leave the party to assert his rights, and to get what redress he may at law, without giving him any extraordinary aid or assistance of its own."

The COURT: But, General, I have decided that the complainant is entitled to an injunction in this case.

Mr. LOWREY: I thought so.

The COURT: The only question is whether there are proper considerations which would lead to its suspension pending appeal. There is no impropriety in my saying that I thought such an application would be made, and my impression is extremely favorable to granting such an application.

Mr. ROOT: May there not be some question as to the form of the injunction which is to be granted? I observe in the briefs of counsel that there was reference to the subject of laches, but that there was a suggestion that any discussion of it would more properly arise upon the consideration of the final decree if one should go.

The COURT: No; I do not care to hear any argument on the right to an injunction in this case. That is settled.

Mr. ROOT: We do not propose, then, to argue the question of the right to an injunction, but to urge upon your honor some considerations which should lead you to make the injunction slightly different in form from that which is ordinarily made.

333 The COURT: No; I think the complainant is entitled to the usual injunction, but the question is whether it should not be suspended until there is a decision by the appellate court; and, as I say, I considered that question somewhat, and thought of saying something about it in my opinion, but concluded I had better not until I had heard counsel.

Mr. LOWREY: We knew your honor had thought of that, and that is why I said at the outset, to save trouble here, that I think the parties in whose favor those considerations should run are not here, for the simple reason that the considerations must relate wholly, I suppose, to the public interests.

The COURT: No, not entirely.

Mr. LOWREY: Perhaps what is called laches might give some rights to this company if it were manufacturing, but since it is not manufacturing, and since it has nothing now which commends itself to your honor, except it has made contracts to supply lamps—which is just the same as saying that, although it infringes, it may continue to do so because it has made contracts to do so—there is nothing in the case to-day.

The COURT: The same question arises that would arise on a motion for a preliminary injunction.

Mr. LOWREY: So we understand.

Mr. ROOT: The Supreme Court, in the case of Barnard *vs.* Gibson, in 7 Howard, 650, lays down substantial relief which we think available to the facts of this case, and that was with reference to stays until the report of the master had come in and a final decree had passed so that it could be made the subject of an appeal to the Supreme Court. It is not necessary to go so far now, because under the act constituting the new court of appeals there can be an appeal from this interlocutory decree before the report comes in, and the stay need not be made as long as it would be under that case. The stay need not be extended by any means as long as it was then.

The COURT: There might be a case where the recovery of
334 the royalty, for instance, would be sufficient to indemnify for the infringement of the patent, but where at the same time the granting of an injunction might cause tremendous inconvenience.

Mr. LOWREY: The power of the court ordinarily to suspend its process we do not doubt, although this new statute comes in to make a provision, namely, in order that there shall be an appeal the injunction must run.

The COURT: I think so, too. I doubt very much whether a decree providing for such a relief as in effect to deny an injunction would be of any force.

Mr. LOWREY: I judge that your honor thought that the true practice was that the injunction should issue, and that the issue should be made by the other parties—an issue to have it stayed as their own independent motion, after that injunction.

Mr. DUNCAN: There is one important fact which I think has not been brought to the attention of the court. The complainant is not a manufacturer of lamps, and has no power whatever to make them. It has——

The COURT (interposing): I assume that the complainant has licensed other companies to manufacture.

Mr. DUNCAN: Certainly, your honor. It made a contract with the Edison Lamp Company, which is the sole manufacturer, requiring that the lamps should be sold at a certain price to the Edison plants.

The COURT: What influenced me very much in the impression I had about the matter when I decided the case was the circumstances that there had been a long delay in the prosecution of the suit, and the additional circumstance that the patent was one that was very well calculated to engender doubt in the minds of people who were making incandescent lamps as to whether it was good for anything, and then the fact that during this time a large amount of capital had been invested and a great many men were undoubtedly employed in making the lamps.

Mr. LOWREY: So far as your honor is now being influenced by the considerations in respect of the delay, we did not expect
335 that that question would arise here as against this company, and perhaps it is our error not to have provided for it, but, if your honor is going upon that, I shall ask for leave to submit our views on the record upon the question of laches as affecting the right to a stay. I would rather not have that question determined now in this way, because we have not said what we have to say upon it.

The COURT: If some one had a right to set up this patent against the infringers, they should have commenced early and in the right time.

Mr. LOWREY: Your honor remembers the situation of things until the decision in Bate and Hammond let us out. People did not think it worth while to spend their money. It was Bate and Hammond that cleared the sky, and there has been no delay since then. No man is to blame when the law tells him "You have not got a right," for not prosecuting that right, if he proceeds vigorously when the superior authority tells him "You have the right."

The COURT: You did not wait.

Mr. LOWREY: The suit was brought before Bate and Hammond, and brought upon advice that such would be the decision of the Supreme Court.

Mr. ROOT: For five years this patent was alive, irrespective of the doctrine of Bate and Hammond, and the proof shows that the agents of the defendant over and over again said to the representative of the complainant, "Why don't you sue if you say this patent is controlling?" We could not go into court.

The COURT: If the case could not be reached in four or five years, as before the institution of the new system, the question would be rather a more serious one than it is now.

Mr. LOWREY: That is what Mr. Hebard says in his affidavit, and I am going to read it in the light of the distinction that I shall ask your honor to make between acquiescence and not suing. It is a very different thing to acquiesce or not to sue. What Mr. Hebard says is this:

336 "The principal business of the defendant in 1880, and prior thereto, was manufacturing apparatus for arc lighting. When it entered the business of manufacturing incandescent-lighting apparatus, it did so in good faith, under advice of its counsel that the apparatus it proposed to manufacture did not infringe any valid patents held by other companies, including the plaintiff herein. It soon had brought to its attention, however, the general claims made by the plaintiff that no incandescent-lighting apparatus could be made without infringing some of its patents; and the defendant's officers and directors, who were also its principal stockholders, assumed that, if the plaintiff had any claim against the defendant's apparatus in which it had confidence, it would at once commence suit and have the matter determined by the court. No such suit was brought, however, and the officers and directors of the defendant became convinced, as year after year passed without the institution of any suit, that the plaintiff's threats in regard to patents were made merely for the purpose of influencing busines- and without the intention of instituting any such suit, and they invested more and more capital in the incandescent-lighting branch of their business, which increased rapidly, until at the time when this suit was commenced that branch of the business had become the principal one."

Now, you see, these gentlemen misjudged. They were not misled. No acquiescence misled them. They thought that they would not be pursued at law. They misjudged, and now they want to get as the reward of that misjudgment what the court allows to people who have been misled. It is *a* quite a different thing. I repeat that if that has a preponderating influence in your judgment—the matter of laches—we would wish to submit to your honor, in writing, what we shall hand to our friends on the other side of course, our views about the true meaning of the testimony in the record. We have not discussed it at all anywhere, and we expected to discuss it when we moved for a preliminary injunction against somebody.

337 The COURT: I am not thinking about acquiescence. Where parties do not assert their rights for several years it looks as if they did not feel that there was any necessity for it, or that they had any rights.

Mr. LOWREY: There are two things. Judicial discretion is governed by established rules. The exercise of a judicial discretion outside of an established rule is an error, and Chief Justice Best, in the great case of Davis *vs.* The Bank of England, said that there was no power so dangerous as the exercise of discretion which con-

trolled and limited rights. The exercise of this judicial discretion, which, being put in motion, stays the operation of a process, rests on two things, and has never in any case rested on any third thing. Those are the rights of a party which grows out of laches or acquiescence of the party who pressed against him, and the other is public inconvenience.

The COURT: Not alone.

Mr. LOWREY: I do not know any third thing.

The COURT: I remember perfectly well a case in which the injunction was stayed simply because great loss would result to the defendant. That was under this very act allowing a stay during the pendency of the appeal to the supreme court. It was a case upon a reissued patent, and that patent had been held void in another circuit, and it was sustained (in this). Nevertheless, on an appeal in that case, because great injury to the defendant would result, the court granted the stay without any reference to the public rights at all.

Mr. LOWREY: Probably they had been misled, or there had been acquiescence. But I have not sufficiently impressed upon your honor's mind the fact that it is not true that there is any hardship to this defendant by being restrained from the sale or manufacture of lamps. They say in their affidavit that they have put up a great many plants, and that they will become valueless if they cannot get lamps; but, as I have suggested to your honor, there is no difficulty in getting lamps from others. Until the manufacturing company is restrained, the owner of this company is not
338 bound to suffer anything. The defendant's company has sold its dynamo machine and has got its money, and it is the party in court. Now, it intimates that the person who bought that machine will lose the value of it if he cannot get lamps. We say, let him go and get lamps where they were got before. He may lawfully do it until we ask to have that lamp manufacturer restrained from selling the lamps. You see, there is nothing here justifying the application of those benevolent principles of law.

The COURT: But the defendant is under obligation to deliver lamps.

Mr. LOWREY: Or to pay damages. I do not suppose your honor is here to protect them from paying damages when the damages may be measured by the cost of going around the corner and buying the lamps in another shop. Besides which, they are the same company. They are all leased by the Westinghouse Company. The United States Company now goes to the Sawyer-Man Company, which is its co-lessee, and says, "Let us have some lamps to give to this consumer;" but to-morrow, if your honor's order shall issue, the consumer will go straight there and get the lamps himself. Your honor's injunction order won't have any effect at all.

However, I have presented this discussion somewhat out of its order because I thought I would save time. I want your honor to see that we are entitled to have this injunction by force of logic, and nothing intervenes to destroy the effect of that logic because of the curious situation this defendant is in. If it has made contracts

to sell the lamps and it does not keep its contract, it will have to pay damages to some one else, and we say that that is a mere figment of the imagination; there are no damages. They will get those lamps where they have heretofore got them. There is, therefore, no reason why those excellent rules should be applied here on this motion to-day, although there may be in some other suit; there are none now.

339 Mr. ROOT: But we will meet the real substance of the thing here. Of course, your honor has considered this whole subject and is possessed of it. At some other time, before some other judge, my friend may come and ask for an injunction against some other company, and your honor's decision refusing to stay this injunction until the review by the appellate court will operate most cogently, and my friend will be ready to present it as a sufficient reason why a preliminary injunction should issue. Your honor is familiar with the whole subject, and has considered it from beginning to end. The real substance of it is here with this defendant, which is under contract to deliver lamps to another, and procures them to be made by a licensee in order that it may deliver them. Now, this defendant stands here placed under these great pecuniary obligations, with large amounts of money invested, with many corporations and individuals from the general public involved in the business, depending upon the performance of those obligations, led into this position by the failure of the complainant to bring the validity of this patent to an issue when the defendant could not bring it to an issue. The real substance of the question is here for your honor to determine.

Now, on this question as between acquiescence and not suing, I want to say a single word.

The COURT: Oh, I do not care to hear anything more on that.

Mr. ROOT: I do not want to burden your honor, and I feel that I ought to speak with great diffidence, coming into a case that every one is so much more familiar with than I am; but I do want to refer to the case of Mackall *vs.* Casilear, 137 U. S. Reports, p. 556, in which the bill was dismissed on demurrer for want of equity, upon the sole ground of laches, and it was claimed that a protest by the complainant and threats to sue by the complainant before bringing suit put the defendant upon notice and made his action at his peril; and the Supreme Court said that mere protests and assertions of right and threats not followed by effective action can have no effect whatever.

340 Now, that is the nature of the protest and the notice in this case. Patent law is designed to stimulate invention and manufacture, and not to crush it and kill it; and the mere general assertions under the hundred- of thousands of patents that are issued, not followed by effective actions, certainly cannot have the effect to excuse laches, or otherwise all action under any patent would necessarily cease. We could not go into court to test the good faith or the validity of the claims which were made regarding this patent, whatever they were; and the proof shows that the complainants were fully aware of an active, vigorous opposition in the manufact-

ure of the lamps which now have been held to be an infringement, during the entire time which was supposed to be the life of this patent; and it now appears, by what is said in regard to this cloud that hung over the patent, that they——

The COURT (interposing): I think the cloud that hung over this patent was in its claims—in the language of the patent itself. That is the greatest cloud that hung over it. I do not blame any infringer very much for assuming that he could go on and make any sort of incandescent lamps without fear of that patent. I notice that no two judges that ever had it before them agreed about it. Perhaps two did, but only one delivered an opinion. If they had both delivered opinions, I presume they would not have agreed.

Mr. ROOT: Your honor will remember that we had a judgment in this case, and that a court of review, although in another cause, disagreed with the well-considered opinion upon which that was founded.

The COURT: I am practically called upon to suspend this injunction for about six months, and I think, in view of the fact that the suit was not brought for five years after it could have been brought; in view of the fact that there is a fair doubt as to whether my decision will be affirmed; and in view of the fact that a large investment has been made by those who have probably thought that they could go on safely notwithstanding the decision; and in view of
341 the fact that large numbers of men have been and still are employed in the manufacture of these lamps; I think I should be justified, under all these circumstances, in the exercise of my judicial discretion, in suspending the operation of the injunction.

Mr. LOWREY: Then the amount of the bonds that should be given in such a case, and the limit to which it should go, will be matters of consideration.

The COURT: Yes.

Mr. LOWREY: I think the gentlemen on the other side should specify the contracts that they have outstanding.

Mr. ROOT: That would require us to disclose our private business.

The COURT: I think you must do so in order that I may determine the amount of the bond.

Mr. ROOT: That would be determined, would it not, by fixing the number of lamps?

Mr. LOWREY: We have great confidence in our friends, but we would rather they should point out to us what their contracts are. Then I suppose the judgment would be allowed, and then an order entered staying the injunction upon the filing of a bond.

The COURT: Yes, and then upon the allowance of the appeal an order would be entered staying the operation of the decree until the decision of the appellate court.

Mr. LOWREY: The stay is, then, limited to their specifying the contracts which they have, not to the doing of new business?

The COURT: Yes.

Mr. ROOT: It should not be limited to the actual express con-

tracts. There are consumers who have our apparatus, who rely upon getting our lamps and to whose use our lamps are appropriate, and who have not actual written contracts, but who have relied upon our assurance that they will be supplied.

The COURT: My object is to protect you and not to protect other parties who are not present in this controversy, because I do not desire that any applications for injunctions shall be prejudiced by my decision here. I think you ought to file some statement of your obligations to supply others with lamps. I do not think you should be at liberty to make new contracts or to supply others with whom you have no contracts.

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Mr. ROOT: That would have practically this effect: that we have a very large amount of money invested in the manufacture of machinery, in the manufacture of dynamos and electrical apparatus, which requires the use of a lamp to perfect it.

The COURT: When the question comes up on a motion for an injunction against the others it will be time enough for that.

Mr. ROOT: No, if your honor please, it arises here. Here we have some millions of dollars invested in the manufacture of electrical apparatus. We wish to proceed with the sale of that apparatus. They are not infringing anybody else's patent, but you cut off the right to furnish lamps in connection with that apparatus and then you stop the sale of it.

The COURT: Cannot others furnish the lamps?

Mr. ROOT: If we are cut off by injunction, why, that moment the sale of these dynamos stops and our manufacturing practically ends. So that, in case there should be a reversal of your honor's decision six months hence, we shall be in a position where our business is entirely ruined.

The COURT: Do you claim that this concern which is supply- you with lamps is your agent?

Mr. ROOT: I am not sufficiently familiar with the contracts to say. How is that, General Duncan?

Mr. DUNCAN: They hire their lamps to be made, and they are made under patents owned by the United States Company.

Mr. ROOT: The other side proposes to interfere with these men, and the effect then would be reacting upon us. Here they say, "You are not damaged by not being allowed to make new lamps, because somebody else can do it." There they would say, "The equity of the United States Company does not attach to you; you did not enter upon this business until 1885." Now, the fact is that, unless we are permitted to procure these lamps to be made, which will be no injury to the complainant, our business will be ruined in any event.

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The COURT: I do not propose to allow you to go on and extend your operations. I will simply allow you to live up to the contracts that are made. I will protect you to that extent. The decision must stand for something.

Mr. ROOT: Your honor will allow us to furnish lamps to supply the dynamos belonging to our companies?

Mr. LOWREY: Why, if your honor please, the dynamo owner can get his lamps at this other place.

Mr. ROOT: But you propose to cut them off by injunction.

Mr. DUNCAN: May I be pardoned for adding a word to what Mr. Root has said? The fuller explanation is this: That in these manufacturing operations the large amount of capital is required, not for the making of the lamps, but for the making of the connected apparatus, and in a lighting plant about 2½ per cent. only of the cost is in the lamp; forty times as much goes into the dynamo; and Mr. Hebard's affidavit shows—what I believe will not be questioned—that, as a rule, in placing these electric-light plants, it is deemed desirable by the public that the dynamos and the lamps shall emanate from the same source. If now, your honor were to limit, for the three or four months ensuing, our right of manufacturing lamps or procuring them to be made under these patents and in accordance with our orders and specifications, then our manufacturing plant for the turning out of dynamos would become practically dead, our manufacturing industry would be broken up, and our skilled workmen finding no employment would be distributed to the four corners of the earth. The best of them would be taken into the employment of our rivals, and then, if four or five months hence, we were fortunate enough to secure a reversal of your
344 honor's decree, it would be impossible to recover our position.

Now, the question is whether, not only as regards lamps, but as regards that much larger industry, we can, on the giving of a sufficient bond, have protection for this limited period of time; and, of course, a form of order could be drawn so that this right, reserved temporarily, should be limited to the sale of lamps in connection with dynamos of our own manufacture. That is all we ask for; and then that great branch of our industry would not be prostrated; and it seems to us that that ought not to be subordinated to this one thing, which is, in the matter of cost, so unimportant an element in the great industry which we have built up in good faith while these gentlemen looked on quietly and said they would wait until we had our money invested, and even then they did not bring their suit until their patent was almost dead.

The COURT: Well, I am inclined to think I will be liberal.

Mr. LOWREY: Before being liberal, will your honor allow me to suggest that with companies allied as these are you can see how your honor's liberality might be abused. They have only to transfer their sales of new dynamos to one of these other companies, and the business which your honor said you would not help them carry on any more would be carried on in the largest possible manner. The allowance to them to supply lamps to the dynamos that they have already sold would result in the selling of all the lamps that they can get customers for, because they will sell as many as they can.

The COURT: I am inclined to think that if you get your royalty on all they sell you will get justice.

Mr. LOWREY: If we get justice then certainly we have no right to ask more.

The COURT: Of course there must be some data furnished for the purpose of ascertaining what the amount of the bond should be.

Mr. LOWREY: In what you said about royalty, of course
345 I do not suppose your honor means what the statute gives us—the profits and the damages?

The COURT: No.

Mr. LOWREY: I think they should file a statement of their contracts, by which your honor can determine what the bond should be.

Mr. DUNCAN: We will furnish a statement of the number of lamps sold during the last six months, with the right of either party to come into court at any time and ask for a modification of the bond.

Mr. LOWREY: There are tricks in all trades but ours. It is intimated to me that the last six months have been a very dull period in that business. Perhaps your honor will have to direct an inquiry into this.

Mr. DUNCAN: Well, what is your idea about it, Mr. Lowrey?

Mr. LOWREY: I am without any.

The COURT: If you cannot come to an understanding I will appoint a master.

Mr. DUNCAN: What I would suggest is that we agree approximately upon the number of lamps we have been making, and then if we cannot agree upon what is a fair amount per lamp we should come to the court; and in any event the order might be entered with leave to apply at any time for an increase in the amount of the bond.

Mr. LOWREY: The accounting of course is not stayed. That is to go on.

The COURT: Do you want to go on with the accounting?

Mr. LOWREY: Yes, sir. That is not to be stayed. We do not want to lose time, and we do not feel any doubt about being in the same position after the appeals are heard that we are in now.

Mr. ROOT: I should think the time of counsel would be better employed in expediting the appeal, instead of bothering about the accounting.

The COURT: Well, I shall not interfere with the accounting.

346 Mr. LOWREY: Then that will go on according to the order.

The COURT: I wish you would agree as to the amount of the bond, so as to have it executed this week.

Mr. DUNCAN: We will endeavor to agree.

Mr. LOWREY: It is suggested to me that in your honor's opinion you have made a clerical error by naming the Farmer, instead of the Adams lamp.

Mr. DUNCAN: I think that is so.

The COURT: Oh, yes. I hope I have not made any more mistakes.

Mr. LOWREY: None that can be corrected, I think.

Mr. ROOT: Not in this forum, at least.

347 *Proceedings at Adjourned Session on July* 23, 1891.

Appearances.

For the complainant: Eaton & Lewis, solicitors; Richard N. Dyer, Grosvenor Lowrey, Sherburne Blake Eaton, of counsel.

For the defendant: Kerr & Curtis, solicitors; Samuel A. Duncan, Leonard E. Curtis, Elihu Root, of counsel.

Mr. DYER: In the electric-light case we have to ask for the signing of the ordinary decree, as your honor ordered yesterday, I believe; and the counsel on the two sides of the case have agreed upon the amount of the bond which should be given for the stay, and have drawn orders (of stay) which differ slightly in form, from the fact that they take a somewhat different view of your honor's intentions in the matter. The order which we have drawn contemplates the issuing of the injunction and the staying of it upon the allowance of the appeal, so far as it relates to lamps sold to users of the dynamos manufactured by the defendant—either sold for dynamos manufactured in the past or to be manufactured in the future—so as to protect the business of the defendant in the manufacture and sale of its dynamos, which are not covered, of course, by this patent—this patent being for a lamp. That form of order we wish to lay before your honor, with the interlocutory decree, which is in the form submitted to your honor yesterday, with the injunction (handing papers to the court). It differs in one respect, that we have provided, in the order, for a verified account of lamps sold, to be filed with the clerk of the court monthly.

348 Mr. ROOT: We have drawn an order in strict accordance with what we understood to be your honor's decision, and the stenographer's minutes indicate that the form which we have adopted was the form intended (handing paper to the court).

The COURT: I certainly did not intend to be understood as staying the injunction altogether.

Mr. ROOT: The form of your honor's direction is that upon the entry of the decree the operation of the injunction should be stayed until the decision of the appellate court. I suppose it is not desirable to have writs issued that are ineffective.

The COURT: After hearing General Duncan I concluded to make the operation of the stay broader than I had intended doing and what I had originally indicated. I did not intend that there should be an absolute stay as to all acts whatever. You might go on and manufacture under the order that you have drawn. I did not intend anything of that sort. No, I think the order submitted by the other side expresses my views.

Mr. DUNCAN: We have had no conference this morning until we came here.

Mr. ROOT: We have provided for the same thing precisely by putting it in the condition of the bond, making the bond conditioned that we could not do so and so.

The COURT: The decree is in the usual form, as Mr. Dyer has drawn it?

Mr. DYER: Yes, sir.

The COURT: And now upon this application the order giving the order under the stay is to be entered. I think that is the better practice.

Mr. DYER: Our order contemplates the issuing of the injunction so that it shall be effective against their manufacturing and selling lamps to anybody and everybody.

Mr. DUNCAN: Our understanding yesterday was that the decree was to be entered in the usual form, and, as we understood the language of the court at the time—of course, it may not have been intended to be that broad—and from our conversation with Mr. Lowrey, which was a little aside from our conversation with
349 the court, that no writ was to issue provided we gave a bond to cover the whole ground.

Mr. EATON: That was not our understanding of it.

Mr. DYER: Mr. Lowrey's understanding was that no writ should be issued in the meantime.

The COURT: I do not think it is of much importance. The great thing is to determine what is to be the extent and what the limitations of the stay, and I think the complainant has expressed it in the order submitted. It gives the defendant the opportunity to sell its lamps to accompany the dynamos.

Mr. DUNCAN: Then you would take out that second paragraph on the second page, Mr. Dyer?

Mr. DYER: I take it that our understanding of the matter is that the writ shall be considered as issued, the whole transaction to be completed to-day. Of course, that recital that Mr. Duncan refers to, which assumes that the writ has been issued, is immaterial. We thought that was the practice which would commend itself to your honor as being more in accordance with the regular practice.

The COURT: I think that is the better practice.

Mr. CURTIS: Of course, we ought to have the right to manufacture these lamps within the limits of the stay. The order submitted by the complainant merely stays the operation of the writ with respect to the sale of lamps by the defendant. It should be with respect to the manufacture and sale.

Mr. EATON: Your own affidavit shows that you do not manufacture.

The COURT: Well, they may claim that they are manufacturing by somebody else.

Mr. CURTIS: We take the view of it that we have the lamps manufactured by somebody else, and we take those lamps and sell them.

Mr. EATON: I understood your honor to say yesterday that you did not propose to enlarge their business at all.

The COURT: No, I did not.

Mr. CURTIS: The defendant is to some extent a user of in-
350 candescent lamps for lighting its factory, for instance, and the terms of this injunction as it is granted would, I suppose, cut that off. But it is not a large matter, and I do not suppose the

complainant intended to cut them off from that. That is all the use we do make of them.

Mr. EATON: Oh, no.

The COURT: You may insert there that they may use them in their own factory; still, if you have an understanding about that, why do you want that in the order?

Mr. ROOT: Now, does your honor regard the decree as signed?

The COURT: I will sign the decree now.

Mr. DYER: Here is the decree which was the form submitted yesterday (handing paper to the court).

The COURT: Now, you come to the question of the appointment of a master.

Mr. DUNCAN: Mr. Lowrey yesterday suggested Mr. Hitchcock. He is one of the standing examiners of the court, and he took the testimony in this case. I do not know that Mr. Lowrey suggested him as a man that would be specially preferred by him, but as a man who would be acceptable, and I am sure he would be to us.

Mr. EATON: We had rather expected that Mr. Shields would be appointed.

The COURT: Is it likely to be a difficult accounting?

Mr. DUNCAN: I think there are some pretty nice legal questions involved. We would prefer to go before a man who has the leisure to give it careful consideration, which perhaps Mr. Shields has not.

Mr. EATON: We would rather have a man who has had experience.

The COURT: When do you want to commence the accounting?

Mr. EATON: Right off.

Mr. DUNCAN: Probably not in August.

Mr. DYER: Under the rule we thought we would have to
351 proceed before the next rule day. We would simply call upon the defendants for an account, and then it would probably be September before we really got started in earnest.

The COURT: If Mr. Hitchcock is more acceptable to both of you than any one else, why that will end it.

Mr. EATON: I should prefer Mr. Shields myself.

The COURT: Mr. Shields makes a very excellent master.

Mr. DUNCAN: We certainly should not interpose any objection to Mr. Shields personally. The only question we had was the one that I suggested, and, as I think, in this case there are some questions of law that are *sui generis* in this matter of accounting, and will call for perhaps pretty close examination. We certainly do not insist that Mr. Hitchcock should be appointed. We would not have presented his name except that we thought he would be entirely satisfactory to the other side, inasmuch as Mr. Lowrey suggested him.

Mr. ROOT: He was formerly deputy clerk of the district court.

The COURT: I think probably Mr. Shields has had more experience in patent cases.

Mr. EATON: We anticipate some pretty delicate questions on this accounting.

Mr. DUNCAN: We shall make no objection to Mr. Shields.

The COURT: Then I will sign these papers, and I will insert Mr. Shields' name as master at the request of the solicitor for both sides.

352 Circuit Court of the United States, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY.
} In Equity.

STATE OF NEW YORK, *City and County of New York,* } *ss:*

Richard S. Brown, being duly sworn, deposes and says:

I am an agent for the Westinghouse Electric and Manufacturing Company, representing the electric-railway department of the business of that company in New England. On or about the 27th day of October last, I was at the office of the Springfield Street Railway Company, at Springfield, Mass., engaged in certain negotiations for the sale of apparatus to that company, and while there the general manager of the said company, Mr. Austin E. Smith, upon opening his mail in my presence, found among his letters a circular from the General Electric Company, dated New York, October 10th, 1892, which he handed to me for examination. At my request he allowed me to keep the said circular, and I annex the same hereto, and mark it "Circular of General Electric Company." I believe that the said circular was issued and mailed by the said General Elec-
353 tric Company, and I have heard that circulars of similar import have been sent to other companies with which I was in negotiation.

RICHARD S. BROWN.

Subscribed and sworn to before me this 15th day of November, 1892.

LORENZO C. CARUNA,
[SEAL.] *Notary Public, Kings County.*

Certificate filed in New York Co.

354 *Circular of General Electric Co.*

General Electric Company, 44 Broad St., New York; 620 Atlantic Ave., Boston.

NEW YORK, N. Y., *October* 10, 1892.

We desire to call the attention of the public, and particularly those who are interested in electric railways, to the fact that the following suits, among others, are being urged to a conclusion, with a view to establishing the rights covered by the patents in question, which rights are now being largely infringed.

Purchasers of electric-railway machines from the General Electric

Co. obtain machines which in respect to economy of current consumption, combined with general reliability of operation, constitute them the best on the market. In addition to that, however, purchasers obtain that complete protection which results from the control by the General Electric Co. of the electric-railway patents granted to Edison, Thomson, Van Depoele and Sprague, who are recognized as the creators of the modern electric-railway system.

A competitive company calls attention to its patent guarantee, which reads as follows:

"The company shall at its own cost and expense defend any and all suit or suits that may be instituted by any party against the purchaser for the alleged infringement of a patent or patents, when such alleged infringement shall consist in the use of any apparatus, machinery or device, or parts thereof, manufactured or sold by the company, for which the purchaser shall have made all payments then due; provided that immediate notice of the institution of such suit or suits be given in writing by the purchaser to the company, and that the purchaser shall permit the company, through
355 its counsel, to defend the same, and shall give all needed information, assistance and authority to enable the company to do so; and thereupon, in case of an award of damages in such suit or suits, the company shall pay such award; but the company shall not be bound to defend any such suit or suits, nor to pay any damages therein, when the same shall arise by reason of the use of parts not furnished by this company."

The control of the patents, as above generally referred to and below set forth in detail, permits the General Electric Co. to extend the protection given its purchasers, not only to the use of the motors and generators alone, but to the methods of operation, which are as necessary as the motors themselves. Thus, the use of the feeder system and the use of the general overhead details as now practiced throughout the country; the use of the under-running trolley—all of these are fully covered by the guarantee of the General Electric Co. These are essential features in the operation of any electric street railway, and are more distinctly covered by patents than are the constituent parts of the motors and generators themselves. They are not covered by the above-quoted guarantee, appearing in a contract for the sale of generators and motors only—as is frequently the case.

Copies of any of the patents in question will be furnished on application. Many others than those specifically mentioned below are likewise controlled by the General Electric Co.

356 *List of Pending Suits.*

1.

THOMSON-HOUSTON ELECTRIC CO. *vs.* ELMIRA AND HORSEHEADS RAILWAY CO.	Circuit Court of the United States for the Northern District of New York.

Subject: Under-running trolley.

Patents.

No. 403,801—C. J. Van Depoele, May 20, 1889, for cross-suspension for trolley wire.

No. 424,380—C. J. Van Depoele, March 25, 1890, for cross-suspension for trolley wire with cross-wires under tension.

No. 424,695—C. J. Van Depoele, April 1, 1890, for trailing switch, switch-plate with ribs, trolley wheel fender.

No. 467,448—C. J. Van Depoele, January 19, 1892, for broad patent for under-running, upward-pressing contact trolley.

357 2.

SPRAGUE ELECTRIC RAILWAY AND MOTOR COMPANY *vs.* FITCHBURG AND LEOMINSTER STREET RAILWAY COMPANY.	Circuit Court of the United States for the District of Massachusetts.

Subject: Electric motor trucks.

Patents.

No. 324,892—F. J. Sprague, August 25, 1885, for motor sleeved on axle at one end and spring-supported at the other end.

No. 406,600—F. J. Sprague, July 9, 1889, for motor sleeved on axle at two points.

No. 424,436—F. J. Sprague, March 25, 1890, for individual motors for separate axles.

3.

SPRAGUE ELECTRIC RAILWAY AND MOTOR COMPANY *vs.* FITCHBURG AND LEOMINSTER STREET RAILWAY COMPANY.	Circuit Court of the United States for the District of Massachusetts.

Subject: Duplicate controller switches at opposite ends of cars, reversing motor and regulating resistance of motor circuit.

Patent.

No. 481,739—F. J. Sprague, August 30, 1892.

358 4.

THOMSON-HOUSTON ELECTRIC CO. *vs.* WAKEFIELD AND STONEHAM RAILWAY COMPANY, CHARLES WOODWARD, and M. E. CLEMENS. — Circuit Court of the United States for the District of Massachusetts.

Subject: Trolley having constant pressure with pole at varying angles.

Patent.

No. 394,037. C. J. Van Depoele, December 4, 1888.

5.

THE THOMSON-HOUSTON ELECTRIC CO. *vs.* PITTSFIELD ELECTRIC STREET RAILWAY COMPANY *et al.* — Circuit Court of the United States for the District of Massachusetts.

Subject: Arched suspenders for electric-railway trolley wires.

Patents.

No. 393,317. C. J. Van Depoele, November 20, 1888.
No. 396,311. C. J. Van Depoele, January 15, 1889.
No. 396,312. C. J. Van Depoele, January 15, 1889.

359 6.

THE THOMSON-HOUSTON ELECTRIC CO. *vs.* PITTSFIELD ELECTRIC STREET RAILWAY COMPANY *et al.* — Circuit Court of the United States for the District of Massachusetts.

Subject: Lightning arrester.

Patent.

No. 321,464—Elihu Thomson, July 7, 1885.

7.

EDISON ELECTRIC LIGHT CO. *vs.* GLENS FALLS, SANDY HILL AND FORT EDWARD STREET RAILWAY COMPANY *et al.* — Circuit Court of the United States for the Northern District of New York.

Subject: Constant potential regulation by a compound dynamo.

Patent.

No. 264,668—T. A. Edison, September 19, 1882.

360 8.

THOMSON-HOUSTON ELECTRIC CO. *vs.* ELECTRIC MERCHANDISE COMPANY, W. R. MASON, and A. H. ENGLUND. } Circuit Court of the United States for the Northern District of Illinois.

Subject: Overhead switches.

Patents.

No. 393,278—C. J. Van Depoele, November 20, 1888, for switch and crossing.

No. 396,313—C. J. Van Depoele, January 15, 1889, for adjustable switch and crossing.

9.

THOMSON-HOUSTON ELECTRIC CO. *vs.* ELECTRIC MERCHANDISE COMPANY, W. R. MASON, and A. H. ENGLUND. } Circuit Court of the United States for the Northern District of Illinois.

Subject: Arched suspender and pull-off for trolley wires.

Patents.

No. 393,317—C. J. Van Depoele, November 20, 1888, for arched insulator-holder.

361 No. 396,311—C. J. Van Depoele, January 15, 1889, for single-arched insulator-holder.

No. 396,312—C. J. Van Depoele, January 15, 1889, for arched insulator-holder with adjustable ear.

We believe that substantially all the apparatus and devices employed in the modern electric railway are broadly covered by these patents, and that the courts will so determine.

Respectfully,

THE GENERAL ELECTRIC COMPANY.

362 *Charter of General Electric Co.*

Laws of New York, 1892, chap. 323.

An act to incorporate the General Electric Company. Approved by the governor April 15, 1892. Passed, three-fifths being present.

The people of the State of New York, represented in senate and assembly, do enact as follows:

SECTION 1. Joseph P. Ord, S. Endicott Peabody, Frank S. Hastings, James Jackson, S. Dana Green and Eugene Griffin, their associates and successors and assigns, are hereby constituted a body corporate under the name of "General Electric Company," and, as such, are authorized to carry on business for the following purposes, or any of them: The manufacturing, buying, selling, leasing and using of machinery, generators, motors, lamps, apparatus, devices, supplies

and articles of every kind appertaining to or in anywise connected with the production, use, distribution, regulation, control or application of electricity or electrical apparatus for the purpose of light, heat, power, locomotion, telephony, telegraphy, metallurgy or for any other use or purpose; of constructing, acquiring, using, selling, buying or leasing any works, construction or plant, or part thereof, connected with or involving such use, distribution, regulation, control or application of electricity, or the control or use of electrical apparatus for any purpose; and of producing, furnishing and supplying electricity or electrical apparatus in any form and for any purpose whatsoever, and generally to manufacture, buy, sell, lease and use machines, engines, mechanical devices and articles of every other character, and to carry on a general manufacturing business. Of acquiring by purchase or otherwise, and of owning, using, selling, granting, assigning and licensing others to use, letters
363 patent, patent rights, inventions, processes and contrivances relating to electrical apparatus, and the production or application of electricity for the purpose of light, heat, power, locomotion, telegraphy, telephony, metallurgy or any other purpose, or any such letters patent or patent rights, inventions, processes or contrivances which may be used or employed in connection with any such use or application of electricity or electrical apparatus; and in consideration of any such license, sale, grant or assignment, of receiving loyalties, shares of the capital stock, bonds or other securities, of any other corporation, or any other consideration, and of contracting therefor. Of acquiring, owning, holding, buying, selling, pledging and disposing of shares in the capital stock and the bonds or other securities of any corporation owning, leasing, using or employing any letters patent or patent rights relating to or in any way connected with electrical apparatus or the application or use of electricity in any form, or suitable for any portion of the business of this company, and the stocks, bonds and other securities of any corporation owning, leasing, manufacturing, purchasing, using or employing any machinery, apparatus, devices, materials or other property of any kind relating to electrical apparatus, or the use, distribution or application of electricity for any purpose, or for use in connection therewith, or necessary for the business of this company; and in respect of such shares of capital stock, of exercising all rights, powers and privileges which a holder, being a natural person, might have or exercise. Of constructing, purchasing, operating, leasing and selling for itself or others, manufactories or other properties suitable for any of the foregoing objects; of acquiring, holding, using and conveying in this State, and in any and every State, Territory, district or country in which the corporation may carry on business, such real and personal estate, property, rights, privileges, consents and franchises as the purposes of the company, or the convenient transaction of its business, may require; of
364 investing the funds of the company in stock, bonds or securities of any other corporation owning any such lands or other property; and to mortgage any part of its real or personal estate with or without its franchises, to secure the payment of any debts,

obligations or liabilities incurred by it in its business, as its board of directors may direct, under and pursuant and subject to the provisions of its by-laws made in relation thereto. Said company may borrow money, incur debts and liabilities and issue its bonds or obligations therefor, to such amounts, at such rates, and on such terms, as its board of directors may from time to time direct, and secure the payment of the same as above provided. Nothing in this act contained shall be construed to confer upon the corporation hereby created any authority to construct, maintain or operate any telegraph or telephone lines, or lines for the use, distribution or application of electricity for any purpose in any of the streets or highways within the limits of this State, or right to use such streets or highways for any purpose whatever.

§ 2. The rights, powers and privileges herein granted to said corporation shall not be controlled, limited or restricted by any existing statute or law of this State; but so far as such statute or statutes or law are, or might otherwise be inconsistent with the provisions of this act, or any of them, they are and shall be deemed to be altered and amended so far as they are, or might be, applicable to said corporation, so as to conform to the provisions of this act, which provisions shall be in lieu of all provisions in said statutes relating to the same subject matters. Except as last above provided, and except upon subjects or matters relating to which special provision is made in this act, the said corporation shall be subject to and governed by the general provisions of the law of this State applicable thereto.

§ 3. The capital stock with which said company shall commence business shall be one hundred thousand dollars divided into one thousand shares, each of one hundred dollars. The said capital stock may be increased from time to time by the vote of the
365 holders of two-thirds of the then existing capital stock, in person or by proxy, at a meeting of the stockholders duly called for that purpose, to such an amount as may be determined necessary for the company's business; any such meeting to be held upon a notice given to the several stockholders not less than ten days before the day of the meeting, by delivering the same personally or mailing the same, postage prepaid, to the respective stockholders at their last-known residence or place of business; provided, a certificate of such increase, signed and sworn to by a majority of the directors and the president and secretary of said corporation, shall be filed in the office of the secretary of state, and a duplicate thereof in the office of the clerk of the city and county of New York. Said corporation may issue a portion of its original or increased capital stock, not exceeding one-fifth part thereof, as preferred stock; such preferred stock to entitle the holders thereof to a cumulative preferential dividend out of surplus earnings, not exceeding seven per centum per annum, but without any other preferential right. The amount of preferred stock to be issued from time to time within the limit above fixed, and the manner of issuing the same may be determined and directed by the board of directors of such corporation. Each share of stock, whether preferred or

common, shall entitle the holder thereof to one vote at all meetings of stockholders and at all elections of the company. The capital stock of said corporation may be issued or caused to be issued by its directors, for money, labor done, or property actually received for the use and lawful purposes of such corporation, at its fair value subject to such restrictions as may be provided in the by-laws of said company. The holder of any stock so issued shall not be subject to any liability upon the same, or by reason of being such stockholders, except that such stockholders shall jointly and severally also be personally liable for all debts due and owing to any of its laborers, servants or employees other than contractors, for
366 services performed by them for such corporation. Before such laborer, servant or employee shall charge such stockholder for such services, he shall give him notice in writing within thirty days after the termination of such services that he intends to hold him liable, and shall commence action therefor within thirty days after the return of an execution unsatisfied against the corporation upon a judgment recovered against it for such services. No person holding stock in said corporation as collateral security or as executor, administrator, guardian or trustee, unless he shall have voluntarily invested the trust funds in such stock, shall be personally subject to liability as a stockholder, and no stockholder of said corporation shall be liable for any such debt due to a laborer, servant or employee, if he shall neglect to bring suit against the corporation for such debt within three months after the termination of such services.

§ 4. The stock, property and effects of said corporation shall be managed by a board of directors consisting of not less than three nor more than thirteen, as may be provided by the by-laws to be adopted by said corporation. All vacancies happening in such board may be filled as may be provided in such by-laws.

§ 5. The persons first above named, and such other persons as shall be elected or appointed in accordance with the by-laws of said corporation, shall be the first directors of said corporation, and their term of office shall continue until the first day of February, eighteen hundred and ninety-three, and until others shall be chosen in their place. On or after the said first day of February, eighteen hundred and ninety-three, the board of directors of said corporation shall be elected annually at a meeting of the stockholders thereof, to be held at such time and place as the corporation by its by-laws may appoint.

§ 6. The said board of directors appointed by and under the provisions of this act for the first year may adopt by-laws not inconsistent with this act, or with the laws of this State for the regulation of a corporation. The said by-laws may be altered, amended
367 or repealed by a vote of the holders of the majority of the stock, represented in person or by proxy, at any meeting of such stockholders duly called.

§ 7. The annual report, if any, at any time required to be filed by such corporation under the general laws of this State, or any of them, shall state:

1. The amount of its capital stock actually issued.

2. The amount of its debts, or an amount which they shall not exceed.

3. The amount of its assets, or an amount which its assets shall at least equal. Such report shall be signed, verified and filed in the manner and within the period required by the general laws applicable thereto. In case the directors shall fail so to file any such required report, the directors who shall have neglected or refused to make and file the same and who shall also have neglected or refused to make or file any alternative individual report, as permitted by general law, shall be jointly and severally liable, as provided by general law, and every officer and director of such corporation signing any certificate, report or public notice required by law which shall be false in any material representation, shall jointly and severally be personally liable to the creditors of the company for any damages caused to them thereby. There shall be a president, secretary and treasurer of such corporation, and such other officers as shall be provided by its by-laws. The president shall be selected by, and from, the directors. The other officers shall be elected or appointed, and have such qualifications as may be provided by the by-laws of the corporation. The directors of said corporation shall keep, or cause to be kept, at its office books of account of its business and transactions, and a book to be known as the "stock book," containing the names alphabetically arranged of all persons who are or within two years have been, stockholders of the corporation, showing their place of residence, the number of shares of stock held by them respectively, and the time when they re-
368 spectively became the owners, and the time when the same was transferred to them respectively on the books of the company. The stock book of such corporation shall be open daily during business hours for the inspection of its stockholders and creditors, who may make extracts therefrom.

§ 8. The directors of said corporation may declare and cause to be paid dividends in money or property, but only from the net profits of its business.

§ 9. The said corporation may go into liquidation, and may wind up its affairs and business, and may sell, convey and dispose of all its property upon the consent thereto of its stockholders holding two-thirds of all its capital stock, such consent to be given at a meeting of said stockholders duly held for that purpose; and the board of directors, or such other officers or persons as may be authorized and directed by a vote of its stockholders owning two-thirds of its capital stock shall be duly authorized as trustees to so dispose of the property of said corporation, and liquidate and wind up its affairs and business.

§ 10. The said corporation shall not commence business until it shall have paid to the treasurer of this State the sum of ten thousand dollars as a franchise tax, and it shall thereafter, from time to time, pay such further sum to the said State treasurer as shall make the aggregate sum so paid by it to the State treasurer equal at all times to one-twentieth part of one per centum upon its existing capital

stock. This act shall not be construed as granting to the corporation hereby created the right to create or maintain any monopoly or unlawful combination in restraint of trade.

§ 11. This act shall take effect immediately.

369 *Certificate of Increase of the Capital Stock of the General Electric Company.*

STATE OF NEW YORK, *City and County of New York,* } *ss:*

We, Eugene Griffin, S. Dana Greene, Joseph P. Ord, James Jackson, being a majority of directors of the General Electric Company (created by chapter 323 of the Laws of the State of New York, approved by the governor April 15th, 1892) the said Eugene Griffin being the president, and the said S. Dana Greene being the secretary of said corporation, do hereby certify:

1. That a meeting of the stockholders of said company was, upon the 16th day of April, 1892, called by the board of directors of said company to be held at the Drexel building, Nos. 1–3 Broad street, in the city of New York, on the 30th day of April, 1892, at 11 o'clock a. m., for the purpose of voting upon a proposal to increase the capital stock of said company from the present amount thereof to the total amount of $50,000,000, of such increased capital stock not to exceed $10,000,000 par value to be preferred stock entitling the holders thereof to a cumulative preferential dividend out of surplus earnings not exceeding seven per cent. per annum, but without any other preferential right.

2. That a notice of such meeting was duly given to each of the several stockholders of said company on said 16th day of April, 1892, as provided in section 3 of the charter of said company, such notice being admitted in writing by each of said stockholders.

3. That, in pursuance of said notice, a meeting of the stock-
370 holders of said company was duly held on the 30th day of April, 1892, at the Drexel building, Nos. 1–3 Broad street, in the city of New York, at eleven o'clock a. m., at which meeting all the stockholders of said company were present in person or by proxy, and that at such meeting the following resolution was duly adopted by vote of the holders of more than two-thirds of the capital stock existing at the date of such meeting, namely, 1,000 shares.

Resolved, That the capital stock of this company be, and the same is hereby, increased from the present amount thereof (namely, $100,000) to the total amount of $50,000,000 divided into 500,000 shares, each of $100, such amount being hereby determined to be necessary for the company's business, and that such stock may be issued as hereafter determined and directed by the board of directors.

And we do hereby certify that the capital stock of said company is increased from the present amount thereof (namely, 1,000 shares of $100 each) to the total amount of 500,000 shares of $100 each.

In witness whereof, we have hereunto set our hands this 30th day of April, 1892.

EUGENE GRIFFIN,
President and Director.
S. DANA GREENE,
Secretary and Director.
JOSEPH P. ORD, *Director.*
JAMES JACKSON, *Director.*

STATE OF NEW YORK, }
City and County of New York, } *ss:*

We, Eugene Griffin, S. Dana Greene, Joseph P. Ord, James Jackson, being severally duly sworn, do severally depose as fol-
371 lows, to wit: We are the persons named in and who signed the foregoing certificates, and we are as therein specified the president, secretary and a majority of the directors of said corporation, and the said certificate is in all respects true, to our own knowledge.

EUGENE GRIFFIN.
S. DANA GREENE.
JOSEPH P. ORD.
J. JACKSON.

Sworn to before me this 30th day of April, 1892.
HOWARD VAN SUIDEREN,
Notary Public, New York County.

STATE OF NEW YORK, }
City and County of New York, } *ss:*

I, William J. McKenna, clerk of the city and county of New York, and also clerk of the supreme court for the said city and county, the same being a court of record, do hereby certify, that Howard Van Suideren, before whom the annexed deposition was taken, was, at the time of taking the same, a notary public of New York, dwelling in said city and county, duly appointed and sworn, and authorized to administer oaths to be used in any court in said State, and for general purposes; that I am well acquainted with the handwriting of said notary, and that his signature thereto is genuine, as I verily believe.

In testimony whereof, I have hereunto set my hand and affixed the seal of the said court and county, the 30th day of April, 1892.
WM. J. McKENNA, *Clerk.*

372 STATE OF NEW YORK, }
Office of the Secretary of State, } *ss:*

I have compared the preceding with the original certificate to increase the capital stock of General Electric Company, filed and recorded in this office on the 2d of May, 1892, and I do hereby certify the same to be a correct transcript therefrom and of the whole thereof.

Witness my hand and the seal of office of the secretary of state at the city of Albany, this 2d day of May, one thousand eight hundred and ninety-two.

[SEAL.] FRANK RICE,
Secretary of State.

STATE OF NEW YORK, TREASURER'S OFFICE,
ALBANY, *May 2d*, 1892.

$15,000.00. Received from General Electric Company fifteen thousand dollars, being tax of one-twentieth of one per cent. upon increase of capital stock of the above-named company for franchise tax pursuant to chapter 323, Laws of 1892.

GEO. B. CHURCH,
Deputy Treasurer.

CALVIN J. HUSON,
Deputy Comptroller.

373 STATE OF NEW YORK, }
City and County of New York, } *ss:*

I, William J. McKenna, clerk of the said city and county, and a clerk of the supreme court of said State for said county, do certify that I have compared the preceding with the original certificate of increase of capital stock of the General Electric Company, filed and recorded 2d May, 1892, 2 hrs. 56 mins., on file in my office, and that the same is a correct transcript therefrom, and the whole of such original.

In witness whereof, I have hereunto subscribed my [SEAL.] name, and affixed my official seal this 14th day of November, 1892.

WM. J. McKENNA, *Clerk.*

374 United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY
vs.
SAWYER-MAN ELECTRIC COMPANY. } In Equity.

The bill of complaint in this case having been duly filed, and a subpœna duly issued and served upon defendant, and a motion for a preliminary injunction having been brought before this court for hearing on the 18th day of November, 1892, upon the bill of complaint and upon the affidavits of John W. Howell, Francis R. Upton (two affidavits), Thomas A. Edison, George F. Barker, Jacob H. Herrick (two affidavits), and Walter K. Griffin, for the complainants; and the affidavits of Hugh R. Garden, Henry C. Davis, George W. Hebard, George Westinghouse, Jr., Lemuel Bannister, William H. Browne, Frederick Darlington, Edwin F. Baker, Frederick P. Barnes, L. A. Marshall, George W. Sharp, D. A. Tompkins, L. W. Robinson, Jr., William E. Ferra, Calvin B. Humphrey, Joseph C.

Hubner, Samuel A. Duncan and Richard S. Browne, for the defendant, and the exhibits and documents therein referred to, and the answer of the defendant;

And C. A. Seward, Grosvenor P. Lowrey and Richard N. Dyer, Esquires, appearing for the complainants, and Edmund Wetmore, Elihu Root and Leonard E. Curtis, Esquires, appearing for the defendant;

And the court, feeling assured that by granting a *pro forma* order for an injunction *pendente lite*, without trying or hearing the
375 questions involved, an appeal therefrom promptly taken to the circuit court of appeals for the second circuit will be called and heard as a preferred case at the head of the calendar of that court for the session beginning December 6, 1892; and no opposition being offered to such course, to facilitate a determination of the questions presented:

It is ordered that an injunction *pendente lite* issue, as prayed for in the bill of complaint herein.

And it is further ordered that upon the issuing of said injunction the operation of the same shall be stayed until the 6th day of December, 1892, or such day thereafter as the circuit court of appeals shall first assemble, and that this stay shall then *ipso facto* terminate unless the defendant has perfected its appeal (and said case is ready to be called for argument in its due order as a preferred case on the calendar on that day), and defendant then stands ready to argue the same, in which case this stay shall continue until said appeal is decided by the appellate court.

ADDISON BROWN.

(Endorsed:) United States circuit court, southern district of New York. In equity. Edison Electric Light Company and Edison General Electric Company *vs.* Sawyer-Man Electric Company. Order. U. S. circuit court. Filed Nov. 19, 1892. John A. Shields, clerk.

376 United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY, Complainants, *vs.* SAWYER-MAN ELECTRIC COMPANY, Defendant.	In Equity. No. 5471.

To the honorable the judges of the circuit court of the United States for the second circuit in and for the southern district of New York:

The petition of Sawyer-Man Electric Company, defendant herein, respectfully showeth:

That on or about the 27th day of October, 1892, the above-named complainants filed their bill of complaint in this court against your petitioner, praying, among other things, for a preliminary injunction against the infringement of United States letters patent No. 223,898; and that on or about the 29th day of October, 1892, the

said complainants served notice upon the defendant of a motion for a preliminary injunction in accordance with the prayer of the said bill of complaint, together with copies of certain affidavits and papers specified in the said notice in support of the said motion, and thereafter served copies of certain other affidavits and papers in support of the same, which notice of motion, affidavits and other papers were filed with the clerk of this court.

377 That thereafter the defendant served upon the complainants, and filed with the clerk of this court, certain affidavits and other papers in opposition to said motion, and filed its answer to the said bill.

That, after various adjournments, the said motion was brought on for hearing, and on the 19th day of November, 1892, an order was entered upon the formal direction of the Honorable Addison Brown, one of the judges of this court, granting a preliminary injunction against this defendant as prayed in the said bill, enjoining this defendant *pendente lite* from infringing the said letters patent No. 223,898.

Wherefore, this defendant, feeling itself aggrieved by the said order, appeals therefrom to the circuit court of appeals of the United States in and for the second circuit, and it prays that this appeal may be allowed, and that a transcript of the said order and of the pleadings, affidavits and other proceedings relating to the granting of the said preliminary injunction, duly authenticated, may be transmitted to the circuit court of appeals.

KERR & CURTIS,
Solicitors for Defendant.

Ordered this 22d day of November, 1892, that the above appeal be allowed as prayed for.

ADDISON BROWN.

(Endorsed:) United States circuit court, southern district of New York. In equity. No. 5471. Edison Electric Light Company and Edison General Electric Company, complainants, *vs.* Sawyer-Man Electric Company, defendant. Petition of appeal. Kerr & Curtis, defendant's solicitors, 120 Broadway, New York. Due service of a copy of the within is hereby admitted. N. Y., Nov. 23, 1892. Dyer & Seely, sol'rs for compl't. U. S. circuit court. Filed Nov. 23, 1892. John A. Shields, clerk.

378 United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY, Complainants, *vs.* SAWYER-MAN ELECTRIC COMPANY, Defendant.	In Equity. No. 5471.

And now comes the defendant herein, by its solicitors Kerr & Curtis, and in connection with its petition of appeal from the order of November 19th, 1892, granting a preliminary injunction, makes and files the following assignment of errors:

First. The defendant assigns as error that the court did not refuse the said injunction on the ground that the complainants and their predecessors in interest have been guilty of gross laches in asserting their rights under the patent in suit; that by reason of such laches, and as a direct result thereof, large investments have been made both by manufacturers of dynamo machines and other electrical apparatus and by purchasers of plants supplying the public with light who are dependent upon the defendant's factory for the necessary supply of incandescent lamps for continuing the operations of such factories and plants, and that the public would suffer great inconvenience and the said manufacturers of electrical apparatus and the owners of the said plants would suffer irreparable injury without corresponding benefit to the complainants,
379 and that large numbers of workmen would be thrown out of employment if the said injunction were granted and enforced.

Second. The defendant assigns as error that the court did not refuse the said injunction on the ground that the complainants intend to make an unconscionable and inequitable use of the same.

Third. The defendant assigns as error that the court did not refuse the said preliminary injunction on the ground that the complainants have entered into an illegal and inequitable combination with various other corporations in restraint of trade and commerce in and among the several States, and are attempting to monopolize, and combining and conspiring with other persons and corporations to monopolize, a part of the trade and commerce in and among the several States, and are seeking the said injunction in furtherance of the purposes of the said combination and attempt to monopolize a part of the trade and commerce in and among the several States, and they are, therefore, not entitled to the assistance of a court of equity in carrying out the purposes of such illegal and inequitable combination and attempt.

Fourth. The defendant assigns as error that the court did not refuse the said injunction on the ground that the said injunction is sought in aid of an unlawful combination between the complainants and the Thomson-Houston Electric Company and various other corporations for the prevention of competition, and for the creation of a monopoly, and for the unlawful restraint of trade in apparatus and materials for furnishing electric light and power in the State of New York and elsewhere.

Fifth. The defendant assigns as error that the court did not refuse the said injunction on the ground that by reason of the relations of the complainants to the General Electric Company and the
380 Thomson-Houston Electric Company, brought about by the combination existing between them, and the relations of the said Thomson-Houston Company to the defendant, the said complainants are equitably estopped from seeking to enjoin the defendant from making incandescent lamps of the kind it was organized to make and is now making.

Sixth. The defendant assigns as error that the court did not refuse the said injunction on the ground that the General Electric

Company is the successor of the complainants and the real party in interest in this suit, and is also the successor and owner of the Thomson-Houston Electric Company, and, as such successor and owner of the said Thomson-Houston Company, is acting inequitably in seeking to reap the benefit accruing to the said Thomson-Houston Company from a certain agreement made on or about the first day of December, 1888, between the said Thomson-Houston Company on the one part, and the defendant The Westinghouse Electric Company and the Consolidated Electric Light Company on the other part, and at the same time to deprive the defendant and the said Westinghouse Company and the said Consolidated Company of all benefit accruing to them under the said agreement by enjoining the defendant from manufacturing the incandescent lamps which the said agreement contemplated it should make, and that a court of equity should not assist the said General Electric Company in such inequitable conduct.

Seventh. The defendant assigns as error that the court did not, in view of the laches of the complainants and their predecessors in interest, and the large investments which have been made by the defendant and the manufacturing companies associated in interest with it, and the purchasers of plants manufactured by the said defendant and the said companies as the direct result of such laches,

require as a condition of the granting of the said injunction
381 that the complainants should supply incandescent lamps to the defendant, or the users of apparatus manufactured by it and by the manufacturing companies associated with it in interest, upon reasonable terms.

Eighth. The defendant assigns as error that the court did not stay the said injunction until the first day of January, 1893, in order to enable the defendant and its customers to secure a proper supply of the incandescent lamps not infringing the patent in suit which the Westinghouse Company is, as shown in defendant's answering papers, making diligent preparations to furnish.

Ninth. The defendant assigns as error that the court did not except from the operation of the said injunction the stock of lamps defendant now has on hand and allow the defendant to sell the same under proper conditions as to security and accounting.

Tenth. The defendant assigns as error that the court did not limit the injunction to the second claim of the said patent, but granted the same in a form so broad as to include the first, third and fourth claims of the said patent, in regard to which there was no proof of infringement, and which the court had held in another case not to be infringed by incandescent lamps substantially the same as those now alleged to have been made and sold by the defendant.

Eleventh. The defendant assigns as error that the court did not refuse the said injunction as contrary to equity.

By reason of the aforesaid errors this defendant prays that the said order granting a preliminary injunction may be reversed and vacated.

KERR & CURTIS,
Solicitors for Defendant.

ELIHU ROOT, *Of Counsel.*

382 (Endorsed:) United States circuit court, southern district of New York. In equity. No. 5471. Edison Electric Light Co. and Edison General Electric Company *vs.* Sawyer-Man Electric Company. Assignment of errors. Kerr & Curtis, solicitors for defendant, 120 Broadway, N. Y. city. Due service of a copy of the within is hereby admitted. N. Y., Nov. 23, 1892. Dyer & Seely, sol'rs for compl'ts. U. S. circuit court. Filed Nov. 23d, 1892. John A. Shields, clerk.

383 United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY, Complainants, *vs.* SAWYER-MAN ELECTRIC COMPANY, Defendant. } In Equity. No. 5471.

Know all men by these presents, that we, George W. Hebard, of Brooklyn, New York, and Philip Ferdinand Kobbé, of New Brighton, Staten Island, are held and firmly bound unto the above-named complainants, Edison Electric Light Company and Edison General Electric Company, in the sum of five hundred dollars, to be paid to the said complainants, for the payment of which well and truly to be made we bind ourselves and each of us, our and each of our heirs, executors and administrators, jointly and severally, firmly by these presents.

Sealed with our seals and dated the 21st day of November in the year of our Lord one thousand eight hundred and ninety-two.

Whereas the above-named defendant, Sawyer-Man Electric Company, has prosecuted an appeal to the circuit court of appeals of the United States in and for the second circuit to reverse the order entered in the above-entitled suit by the judge of the circuit court of the United States for the southern district of New York on the 19th day of November, 1892, granting a preliminary injunction against the defendant.

Now, therefore, the condition of this obligation is such that
384 if the above-named defendant shall prosecute this appeal to effect and answer the costs of the said appeal if it fails to make its appeal from the said order good, then this obligation shall be void; otherwise the same shall be and remain in full force and virtue.

GEORGE W. HEBARD. [SEAL.]
PH. FERD. KOBBÉ. [SEAL.]

Sealed and delivered and taken and acknowledged this 21st day of November, 1892, before me—

BENJAMIN BARKER, JR.,
Notary Public, N. Y. Co.

STATE OF NEW YORK, *City and County of New York,* } *ss:*

George W. Hebard, being duly sworn, doth depose and say that he is a householder and a resident in the city of Brooklyn, in the

State of New York, and that he is worth more than the sum of $1,000 over and above all his just debts and liabilities.

GEORGE W. HEBARD.

Sworn to this 21st day of November, 1892, before me—

BENJAMIN BARKER, JR.,
Notary Public, N. Y. Co.

STATE OF NEW YORK, } ss:
City and County of New York, }

Philip Ferdinand Kobbé, being duly sworn, doth depose and say that he is a householder and resident in New Brighton, S. I., in the State of New York, and that he is worth more than the sum of $1,000 over and above all his just debts and liabilities.

PH. FERD. KOBBÉ.

Sworn to this 21st day of November, 1892, before me—

BENJAMIN BARKER, JR.,
Notary Public, N. Y. Co.

385 (Endorsed:) United States circuit court, southern district of New York. In equity. No. 5471. Edison Electric Light Company and Edison General Electric Company, complainants, *vs.* Sawyer-Man Electric Company, defendants. Bond for costs on appeal. Kerr & Curtis, defendant's solicitors, 120 Broadway, New York. Approved. Addison Brown. U. S. circuit court. Filed Nov. 23, 1892. John A. Shields, clerk.

UNITED STATES OF AMERICA, } ss:
Southern District of New York, }

To Edison Electric Light Company and Edison General Electric Company, Greeting:

You are hereby cited and admonished to be and appear at the circuit court of appeals of the United States in and for the second circuit, to be holden on the 6th day of December, 1892, in the city of New York, at the October term of said court next ensuing, pursuant to an appeal filed in the clerk's office of the circuit court of the United States, wherein The Sawyer-Man Electric Company is appellant, and you are the appellees, to show cause, if any there be, why the order granting a preliminary injunction in said appeal mentioned should not be reversed or corrected as regards the granting of such injunction, and speedy justice not be done to the parties in that behalf.

ADDISON BROWN.

New York city, November 22, 1892.

(Endorsed:) U. S. circuit court of appeals for the second circuit. In equity. Edison Electric Light Company and Edison General Electric Company *vs.* Sawyer-Man Electric Company. Citation on appeal. Kerr & Curtis, solicitors for appellant, 120 Broadway,

N. Y. city. Due service of a copy of the within is hereby admitted. N. Y., Nov. 23, 1892. Dyer & Seely, sol'rs for appellee-. U. S. circuit court. Filed Nov. 23, 1892. John A. Shields, clerk.

386 United States Circuit Court, Southern District of New York.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY, Complainants,
vs.
SAWYER-MAN ELECTRIC COMPANY, Defendant.
} In Equity. No. 5471.

It is hereby stipulated and agreed that, in making up the transcript of the record in the above-entitled cause for use in the United States circuit court of appeals for the second circuit on defendant's appeal from the order granting a preliminary injunction herein, the clerk of the court may use a copy of the printed volume entitled "Complainants' Moving Papers on Motion for Preliminary Injunction," also copies of printed affidavits of Jacob H. Herrick and Francis R. Upton entitled "Additional Affidavit and Notice on Motion for Preliminary Injunction," and a copy of the printed volume entitled "Defendant's Answering Papers on Motion for Preliminary Injunction," pages 1 to 174 inclusive, which were submitted to the court at the hearing of said motion as containing correct
387 copies of the bill of complaint and all the other papers submitted by the parties excepting defendant's answer.

Dated November 21, 1892.

DYER & SEELY,
Solicitors for Complainants.
KERR & CURTIS,
Solicitors for Defendant.

(Endorsed:) No. 5471. In equity. U. S. circuit court, southern district of New York. Edison Electric Light Company *et al.*, complainants, *vs.* Sawyer-Man Electric Company, defendant. Stipulation. Kerr & Curtis, solicitors for defendant, 120 Broadway, N. Y. city. U. S. circuit court. Filed Nov. 23, 1892. John A. Shields, clerk.

388 UNITED STATES OF AMERICA,
Southern District of New York, } *ss:*

I, John A. Shields, clerk of the circuit court of the United States of America for the southern district of New York in the second circuit, do hereby certify that the foregoing pages, numbered from one to 388, inclusive, contain a true and complete transcript of the record and proceedings had in said court in the case of Edison Electric Light Company and Edison General Electric Company, complainants and appellees, against Sawyer-Man Electric Company, defendant and appellant, as the same remain of record and on file in said office.

In testimony whereof I have caused the seal of the said court to be hereunto affixed, at the city of New York, in the southern district of New York, in the second circuit, this [SEAL.] twenty-fifth day of November, in the year of our Lord one thousand eight hundred and ninety-two, and of the Independence of the said United States the one hundred and seventeenth.

JOHN A. SHIELDS, *Clerk.*

389 United States Circuit Court of Appeals for the Second Circuit, October Term, 1892.

Submitted December 9, 1892. Decided December 15, 1892.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY, Complainants and Appellees, *vs.* SAWYER-MAN ELECTRIC COMPANY, Defendant and Appellant. | No. 118. Appeal from the Circuit Court of the United States for the Southern District of New York.

Before Judges Wallace, Lacombe and Shipman.

Per curiam.—This is an appeal from an order of the circuit court, granting an injunction *pendente lite*, restraining the defendant from making, using, or vending the incandescent electric lamps of the patent granted to Thomas A. Edison, January 27th, 1880, No. 223,898, of which the complainants are the owners. The order was granted *pro forma*, in the view that a final disposition of the questions involved might be promptly made by the decision of this court.

The validity of the patent, and the infringement of its second claim by such lamps as the defendant makes, were adjudged by the circuit court for the southern district of New York, July 14, 1891, in a decree at final hearing. That suit was brought against the United States Electric Lighting Company, and was defended by the Westinghouse Electric Company, a corporation which, since October 10, 1888, has been the owner of the business carried on in the 390 name of the present defendant. The business of the defendant consists exclusively in the manufacture of the infringing lamps. The decree of the circuit court, adjudging the validity of the second claim of the patent, and its infringement by lamps, such as are made by the defendant, was, upon an appeal, affirmed by this court, October 4, 1892. That decree, among other things, awarded the complainants a perpetual injunction. The present suit was brought subsequently to that affirmance.

It is apparent that the order for the present injunction is in effect one to extend the terms of an injunction already granted in a suit determined by the court of last resort between the same parties, or their privies, so as to include a new infringement. For an understanding of the grounds upon which the defendant contends the

injunction ought not to have been granted, the following narrative is necessary.

For several years subsequent to 1880, the Edison Company and the United States Electric Lighting Company were the only manufacturers of incandescent-lighting apparatus in this country doing any considerable business. The United States Electric Lighting Company began manufacturing incandescent-lighting apparatus, including the lamps which have been held to be an infringement of the Edison patent, in the summer of 1880, and continued in such business until a recent period. In May, 1885, a suit was brought against it upon the present patent. Another corporation, the Consolidated Electric Lighting Company, was organized in September, 1882, and began the manufacture of incandescent-lighting apparatus. This company was the owner of and operated under what are known as the Sawyer-Man patents for electric-lighting apparatus; and under these patents, it assumed that it had the exclusive right to make and sell the lamp claimed in the patent in suit. In May, 1885, suit was brought against it by the Edison Electric Light Company upon the patent in suit, and about the same time it brought suit against the Edison Company for infringement of its own patent. In 1883 a corporation, known as the Thomson-Houston Company, began the manufacture and sale of
391 electric apparatus for lighting and power. As the result of negotiations between the Consolidated Electric Lighting Company and the Thomson-Houston Company, The Sawyer-Man Company, the present defendant, was organized in September, 1886. Nine-tenths of its stock was owned by the Thomson-Houston Company. It received from the Consolidated Company a license to manufacture lamps under the Sawyer-Man patents, and thereupon began the business of manufacturing the infringing lamp, and has continued in this business to the present time. In August, 1887, all the stock of the defendant, including that owned by the Thomson-Houston Company, was sold to the Consolidated Company for $120,000 in bonds, and the same amount at par of its stock. In December, 1888, the Thomson-Houston Company sold its stock in the Consolidated Company to the Westinghouse Electric Company. At the same time, by an agreement between the Consolidated Company and the Westinghouse Company, the fulfillment of which, on the part of the Consolidated Company, was guaranteed by the Westinghouse Company, the Thomson-Houston Company was licensed under the patents of the Consolidated Company to make incandescent lamps for export, and use with generating apparatus of its own manufacture in this country; and the Westinghouse Company was prohibited from selling incandescent lamps for use with the Thomson-Houston generating apparatus for a period which might, at the option of the Thomson-Houston Company, extend to 1902. This agreement recognized the fact that the Thomson-Houston Company could, during the continuance of the agreement, make and sell lamps not covered by the Consolidated Company's patent; and in the event of such manufacture and sale, the latter company was released from its obligation not to sell lamps for use in connec-

tion with the Thomson-Houston generating apparatus. Pending the suit against the United States Electric Light Company, the Westinghouse Company succeeded to the business of the United States Company, the Consolidated Company, and the defend-
392 ant; and since September, 1888, the defendant has been the manufacturer of lamps for the Westinghouse system. Each of the various companies engaged in the manufacture and sale of electric-lighting apparatus, has, as a rule, manufactured all the different pieces of apparatus which are necessary for making up a complete "plant," the different parts being constructed with reference to use with each other, and not so as to be adapted for use in the systems of apparatus made by other manufacturers. For the purpose of public lighting from central stations, local companies, known as illuminating companies, have been organized in various cities and towns, which have purchased plants from one or the other of the manufacturing companies, and the central stations of such illuminating companies have, as a rule, been equipped wholly with the electrical apparatus made by some one manufacturing company. In many cities and towns there are competing illuminating companies using the system of different manufacturers, some being equipped with the Edison system, some with the Westinghouse system, and some with the Thomson-Houston system.

The United States Company has installed about 1,050 plants, with a lamp capacity of about 350,000 lamps. About 300 of these plants were installed before the suit upon the patent was brought against it. The Consolidated Company also installed a large number of plants. After the Westinghouse Company succeeded to the business of the United States Company and the Consolidated Company, it also installed a large number of plants.

It is said that the aggregate lamp capacity of the incandescent-lighting plants, installed with generating apparatus supplied by the Westinghouse Company, at the present time, represents a capital of about twenty-five millions of dollars, and a lamp capacity of over 1,300,000 lamps. The lamps, themselves, represent but a small part of the cost of the plants, the greater part being represented by the electric apparatus supplied by the Westinghouse Company and its predecessors; but the lamps are essential for the continued operation of the plants. Unless the lamps can be replaced as they are worn out, and can be
393 procured when needed, these plants will be crippled and the greater part of the investment in them will be lost. The central-station plants supply lights to consumers as gas companies supply gas; and if their operation should be stopped, great inconvenience to the public would ensue. The various companies give employment to a large number of men, who might be thrown out of employment if the lamps could not be obtained.

In 1889 the Edison General Electric Company was organized for the purpose of combining the Edison Electric Light Company with various other corporations engaged in the manufacture and sale of electric apparatus, the organization of the subordinate corporations being retained. Prior to April, 1892, the Thomson-Houston Com-

pany had acquired the stocks of various other companies engaged in the business of manufacturing and selling electrical apparatus, and these companies were carrying on the business in combination with the Thomson-Houston Company and under its control. In April, 1892, these two combinations, the Edison General Electric Company and the Thomson-Houston Electric Company, included substantially all the companies which had theretofore been competing in this kind of business, excepting the Westinghouse Company; and in that month the General Electric Company was organized for the purpose of combining these two combinations in one, which should include all the concerns in this country, except the Westinghouse Company, which formerly were competing in the business of making and selling electric light and power apparatus; but the separate organization of the constituent companies was still retained.

The defendant insists that the preliminary injunction should not have been granted, because: (1) Owing to the laches of the owners of the patent in asserting their claims and enforcing them, a large capital has been invested in the manufacture and sale, not only of the lamps, but also in electric-lighting apparatus, which will be greatly depreciated in value unless the lamps can be used with it, and that an injunction will cripple and perhaps ruin the
394 local illuminating companies who have invested in the plants of the Westinghouse Companies if they are prevented from using the lamp of the patent, and thereby subject to great inconvenience those whom these plants furnish with light, and displace a large number of persons who are employed in operating the plants; (2) because the complainants and the other corporations with whom the complainants are associated, the competitors of the Westinghouse Company in the business of making and supplying electric power and lighting, have entered into an unlawful combination to stifle competition in that business, and an injunction will be used unconscionably to further the objects of the combination; and, (3) because by reason of the affiliation of the Thomson-Houston Company with that combination, and the prior dealings of that company with the defendant, the Consolidated Company, and the Westinghouse Company, an equitable estoppel has arisen, by force of which the complainants, as parties to the combination, ought not to be permitted to have an injunction. The question whether there has been any laches in asserting the patent was considered by the circuit court of appeals upon the appeal from the decree of the circuit court, and that court declared that no case was shown to authorize the refusal of an injunction on any theory of laches or equitable estoppel, by reason of undue delay in bringing suit, or acquiescence in known infringement. If the owners of the patent proceeded with due diligence as respects the United States Lighting Company, no other infringers of the patent can be heard to complain with reason, that suit was not brought against them upon the patent previous to the adjudication of its validity in the circuit court. It is a matter of notoriety that that litigation was a very expensive and arduous one; and its progress must have been

familiar to all those who were extensively interested in having the patent defeated. As regards the present defendant, there are no new facts of importance bearing upon the question of laches to distinguish the case from that shown in the former suit. We
395 see no reason for changing the opinion expressed by this court in the former case, and do not deem it necessary, because the same defense has again been urged upon substantially the same state of facts, to add anything to that opinion.

Every one of the manufacturing corporations, the competitors of the Edison Companies, commenced their operations with a knowledge of the existence of the patent in suit. They were controlled by business men of intelligence and experience. Their promoters and managers may have believed, and probably did, that the patent could not be successfully maintained. But they entered upon the business with an understanding of its risks, and of the consequences which would befall them as infringers, if the patent should be sustained. None of them can now be justly heard to say that an injunction which is essential, if not indispensable, to the protection of the owners of the patent and their licensees, ought not to be granted because of the great pecuniary loss which may result. If, in consequence of being deprived of the use of the lamps, their investments in other electric apparatus will be greatly depreciated, they must take the consequences.

The users who have supplied themselves with electric-lighting plants from the infringers, which required for their operation lamps of the patent, are of course infringers. But those who did so before the decision of the circuit court sustaining the patent, and at a time when judicial decisions in foreign countries interpreting the patent were in conflict, and who are now willing to accept their lamps from the complainants upon reasonable terms, have much stronger equities than the manufacturing infringers. These equities the court will not disregard; but what would be reasonable terms, if an application were made to the court on behalf of these users, is a question, which can only be determined in each case upon its particular circumstance.

As to those users, however, who have acquired these plants subsequent to the decision of the circuit court, if they are de-
396 prived of the use of the lamps, and, as a consequence, the value of their plants may be greatly impaired, they must accept the result as a consequence of their own imprudence.

We are not disposed to investigate upon the present case, the character of the combination which has been formed under the name of the General Electric Company. Whether that combination is intended to fetter competition, and is illegal as one in restraint of trade, is a question which we should not undertake to decide upon the evidence before us and in a suit to which it is not a party. The present complainants are entitled by the patent laws to a monopoly for the term of the patent, of the manufacture and sale of the lamps made under it; the right to this monopoly is the very foundation of the patent system. They do not lose that right merely because they may have joined in a combination with others, holding other

patents securing similar monopolies, which combination may, when judicially examined in a proper forum, be held to be unlawful. We do not feel justified in assuming upon the facts before us in the present suit, that the use which the complainants propose to make of the injunction, an injunction which seems necessary to secure their monopoly and make their patent fruitful, will be such as to promote any other monopoly. When it shall be made to appear that some one, to whom in fairness and good conscience these complainants should sell their lamps, has been arbitrarily refused them, save upon oppressive and unreasonable terms, it will be time to consider whether the complainants should be allowed to continue in possession of the injunction.

The alleged estoppel seems to be far-fetched and shadowy. The history which has been given, shows that before the Sawyer-Man Company was organized, litigation upon the patent in suit and upon the Sawyer-Man patents had commenced; that in 1887, the stock in the Sawyer-Man Company, owned by the Thomson-Houston Company, was sold to the Consolidated Company, a party to the suits; and that subsequently, in 1888, the Westinghouse Company,
397 an actual party to the litigation, bought that portion of the stock from the Consolidated Company which had been owned by the Thomson-Houston Company. The estoppel lacks the elements which ordinarily create an estoppel *in pais*, namely, an injury or a harm to one person, resulting from a reliance upon the acts, conduct or declarations of another, in which there was an element of bad faith or wilful neglect of duty. The history of the connection of the Thomson-Houston Company from 1886 to 1888 with the Consolidated Company, and with the Sawyer-Man Company, the defendant, shows that all these companies knew of the existence of the litigations in which the life of the present patent, and of the Sawyer-Man patent was at stake. There can be no charge of concealment or constructive fraud. When the sale and the agreement of 1888 were made, there was no implied obligation upon the Thomson-Houston Company to remain in alliance with the Westinghouse system. The contingency that it might enter upon the manufacture of competing lamps was contemplated. Its union with the Edison interests has neither hastened nor facilitated the application for the present injunction. We perceive no adequate reason from the facts, why the complainants should not obtain the ordinary results which attend a complainant's success in a suit in equity for the infringement of a patent.

The injunction order appealed from should be modified, so as to cover only lamps made in infringement of the second claim of the patent, the other claims not having been infringed according to the adjudication of the circuit court or of this court. It should also contain a provision reserving the right to the defendant to move hereafter for the vacation, suspension or modification of the injunction, upon proof of specific instances of refusal on the part of the complainants, or either of them, to supply the lamps of the patent upon terms reasonable under the circumstances of the particular

case, to the owners of electric-lighting plants which were in-
398 stalled before the rendition of the interlocutory decree of the circuit court sustaining the validity of the patent.

Elihu Root, Edmund Wetmore and Leonard E. Curtis, for the appellant.

Grosvenor P. Lowrey and Clarence A. Seward, for the appellees.

399 At a stated term of the United States circuit court of appeals for the second circuit, held in the court-rooms in the city of New York on the 19th day of December, 1892.

Present: Honorable William J. Wallace, Honorable E. Henry Lacombe, and Honorable Nathaniel Shipman, judges.

EDISON ELECTRIC LIGHT COMPANY and EDISON GENERAL ELECTRIC COMPANY, Complainants & Respondents,
vs.
SAWYER-MAN ELECTRIC COMPANY, Defendant & Appellant.

This cause having come on to be heard on appeal from the order of the circuit court of the United States for the southern district of New York, entered herein November 19th, 1892, granting a preliminary injunction against the defendant, and counsel for the respective parties having been heard by the court upon the
400 said appeal, it is—

Ordered that the said injunction order appealed from be modified so as to cover only lamps made in infringement of the second claim of the patent in suit, and also by inserting a provision reserving the right to the defendant to move hereafter for the vacation, suspension, or modification of the injunction upon proof of specific instances of refusal on the part of the complainants or either of them to supply the lamps of the patent upon terms reasonable, under the circumstances of the particular case, to the owners of electric-lighting apparatus which was installed or purchased before the rendition of the interlocutory decree of the circuit court sustaining the validity of the patent for use with such apparatus, and that the order as so modified be affirmed.

And it is further ordered that a mandate issue to the said circuit court, directing the said court to modify the said injunction order, as above stated, and to proceed herein according to law and justice and to the opinion of this court.

W. J. W.
E. H. L.
N. S.

O. K.
DYER & SEELY,
For Appellees.
KERR & CURTIS,
For Appellant.

401 UNITED STATES OF AMERICA, } ss:
Southern District of New York, }

I, John A. Shields, clerk of the United States circuit court of appeals for the second circuit, do hereby certify that the foregoing pages, numbered from one to four hundred, inclusive, contain a true and complete transcript of the record and proceedings had in said court in the case of The Edison Electric Light Company and The Edison General Electric Company, complainants and appellees, against The Sawyer-Man Electric Company, defendant and appellant, as the same remain and on file in said office.

In testimony whereof I have caused the seal of the said court to be hereunto affixed, at the city of New York, in the southern district of New York, in the second circuit, this twentieth day of April, in the year of our Lord one thousand eight hundred and ninety-three, and of the Independence of the United States the one hundred and seventeenth.

Seal United States Circuit Court of Appeals, Second Circuit.

JOHN A. SHIELDS, *Clerk.*

Office Supreme Court U. S.
FILED
MAY 1 1893
JAMES H. McKENNEY
CLERK

UNITED STATES SUPREME COURT.

IN THE MATTER OF THE PETITION

OF

SAWYER-MAN ELECTRIC COMPANY,

FOR A

WRIT OF CERTIORARI, &C.

PETITION.

KERR & CURTIS,
Solicitors for Petitioner,
120 BROADWAY,
New York City.

EDMUND WETMORE,
SAMUEL A. DUNCAN,
LEONARD E. CURTIS,
Counsel for Petitioner.

C. G. Burgoyne, Walker and Centre Streets, N. Y.

To the Supreme Court of the United States of America:

The Petition of Sawyer-Man Electric Company for a Writ of *Certiorari* directing the case of Edison Elictric Light Company and Edison General Electric Company, complainants, against Sawyer-Man Electric Company, defendant, pending in the Circuit Court of the United States for the Southern District of New York, to be certified to the Supreme Court for its review and determination.

The said petitioner respectfully shows to this Court as follows:

First. Your petitioner is, and at the times hereinafter mentioned was, a corporation organized under the laws of the State of New York, and the complainants in the suit above named are, and at the times hereinafter mentioned were, also corporations organized under the laws of the State of New York.

Second. The said suit is a bill in equity brought by the above-named complainants in the Circuit Court for the Southern District of New York, to restrain your petitioner, the defendant therein, from infringing United States Letters Patent, No. 223,898, granted January 27, 1880, to Thomas A. Edison, for an Improvement in Incandescent Electric Lamps, and afterwards assigned to the complainants.

Third. Prior to the bringing of the said suit against your petitioner, *The Edison Electric Light Company*, the predecessor of the said complainants, brought a suit in equity on the said letters patent in the said Circuit Court against *The United States Electric Lighting Company*, a corporation organized under the laws of the State of New York, and the said suit having been brought on for final hearing, a decree was made by the said Circuit Court on or about the 14th day of July, 1891, adjudging the second claim of the said letters patent to be valid, and holding the incandescent electric lamps made by the said *United States Company*, which were substantially the same as those made by your petitioner, to be an infringement of the said claim.

Appeal having been taken by the said defendant, the said decree was, on or about the 22d day of October, 1892, affirmed by the United States Circuit Court of Appeals for the Second Circuit.

Fourth. The said bill against your petitioner was filed on or about the 29th day of October, 1892, and a motion was made by the complainants for a preliminary injunction against your petitioner, and brought on for hearing on the bill, answer and affidavits and other proofs submitted by both parties. The principal defences interposed to the granting of the said injunction were based upon the laches of the complainants and their predecessors in interest in bringing suit or otherwise asserting their claims under the said Patent No. 223,878, the great injury to vested interests and inconvenience to the public which would result from said injunction, and the inequity and illegality of a certain combination which had been entered into between the complainants and various other corporations engaged in the manufacture of electrical apparatus, and in aid of which the said injunction was sought.

Fifth. Upon the hearing of the said injunction

motion, a *pro forma* order was entered by the said Circuit Court on November 19th, 1892, granting a preliminary injunction against your petitioner, but staying the operation of the same pending appeal. An appeal was taken by the defendant from the said order to the Circuit Court of Appeal for the Second Circuit, and argument on the said appeal having been heard, a decree was entered by the said Circuit Court of Appeals on December 19th, 1892, affirming the injunction order of the Circuit Court, so far as the same related to the second claim of the said Letters Patent No. 223,898, but with leave to the defendant to move for the vacation or modification of said order upon proof of complainants' refusal to sell lamps to owners of plants sold or installed prior to the decision of said Circuit Court on July 14th, 1891, in the said suit against the *United States Company;* and, thereupon, a mandate was issued to the said Circuit Court in accordance with the said decision, and a writ of injunction was issued restraining the defendant from making, using or selling incandescent electric lamps infringing the second claim of the said letters patent as construed by said Circuit Court of Appeals, which injunction is still in force.

Sixth. The principal facts relating to the laches of the complainants and to public inconvenience and injury to vested interests, as set forth in the record of the said case; are, in substance, as follows:

No suit was brought or other proceeding taken by the complainants or their predecessors in interest to establish or assert any rights under the said letters patent No. 223,898, until the month of May, 1885, when the suit above mentioned was brought in the Circuit Court for the Southern District of New York by *The Edison Electric Light Company*, the predecessor in interest of the complainants, against *The United States Electric Lighting Company.* A similar suit was

brought at the same time against *The Consolidated Electric Light Company*, a corporation organized under the laws of the State of New York, but has not been prosecuted.

Long prior to the bringing of the said suits the said two corporations, *The United States Electric Lighting Company* and *The Consolidated Electric Light Company*, had been actively engaged in the manufacture and sale of incandescent electric lamps such as were afterwards held to be an infringement of the said letters patent, with the full knowledge of the complainants' said predecessor and in active competition with it.

The said *United States Electric Lighting Company* commenced such manufactnre and sale of incandescent lamps in 1880, and the said *Consolidated Electric Light Company* commenced such manufacture and sale in 1882, the managers of the said corporations and those who furnished the capital for establishing their business being advised by counsel, and believing, that the said letters patent were not sufficiently broad in their scope to include incandescent electric lamps of the character manufactured by them; and, being confirmed in this belief by the long-continued failure of the owners of the said patent to assert any rights under the same, the said corporations extended such business largely and invested large sums of money in the same.

The investment so made by the said *Consolidated Company* prior to the commencement of any suit on the said patent was upward of $500,000, and that of the said *United States Electric Lighting Company* was nearly $2,000,000.

In the suit against the said *United States Company* a plea was interposed by the defendant in July, 1885, setting up the expiration of the said Edison patent by reason of the expiration in November, 1884, of the first term of a prior Canadian patent for the same invention;

but the said plea was not brought on for argument by the complainant until the year 1887, when it was sustained by the said Circuit Court under the rulings then prevailing in the Circuit Courts in regard to the interpretation of Section 4887, of the revised statutes.

The active prosecution of the said suit was not commenced until the year 1889, when the said plea was withdrawn by agreement of counsel, and an answer was filed. Proofs were then taken and the case brought on for final hearing with the result above set forth.

Down to the time when the case of *Bate vs. Hammond* was decided by this Court, in the year, 1889, it was the common belief of those engaged in the business of electric lighting, including the officers and directors of the said two corporations and those who organized your petitioner and furnished the capital for establishing and developing its business (such belief being founded upon repeated decisions of the Circuit Courts as to the proper interpretation of Section 4887 of the Revised Statutes) that the said Edison patent No. 223,898 had expired in 1884, and that the said suits had been brought by the *Edison Company* merely for commercial effect, and without any intention of prosecuting them.

Your petitioner was organized in the year 1886 for the purpose of taking over and continuing the business of manufacturing incandescent lamps which had been established by *The Consolidated Electric Light Company* as above set forth; and your petitioner invested a large amount of capital in the said business, and continued and enlarged the same, its managers and those who furnished the capital for the business believing in good faith that the said Edison patent No. 223,898 did not cover the incandescent lamps lamps manufactured by your petitioner, and that the said patent had in any event already expired.

Soon after its organization, your petitioner entered

into an agreement with *The Westinghouse Electric Company*, a Pennsylvania corporation, by which it undertook to supply incandescent lamps for use with all electric light plants installed by the said *Westinghouse Company;* and in the year 1888 the said *Westinghouse Company* obtained control of the stock of your petitioner, and from that time until the granting of the injunction above-referred to, your petitioner was managed and oderated as the lamp manufacturing branch of the said *Westinghouse Electric Company* and its successor, the *Westinghouse Electric and Manufacturing Company*, which were engaged in the general business of manufacturing apparatus for the production of electric light and power.

In the year 1889 the said *Westinghouse Electric Company* obtained control of *The United States Electric Lighting Company* above referred to, and the business of manufacturing and selling incandescent lamps theretofore conducted by the said *United States Company* was discontinued by that Company and transferred to your petitioner, and your petitioner became the successor of the said *United States Company* in the said business of manufacturing and selling incandescent electric lamps, and continued to supply such lamps for use with electric-lighting plants installed by the said *United States Company*, as well as those installed by the said *Westinghouse Company.*

The general business conducted by the said *Westinghouse Company* and the said *United States Company* has consisted in the manufacture and installation of the electrical apparatus necessary for complete outfits or "plants" for furnishing incandescent electric light or power or both. Such plants include dynamo machines, converters, meters and various other apparatus besides incandescent lamps, and in such plants the incandescent lamps, although representing only a very small part of the entire cost of the apparatus, are essential for any use of such apparatus, and such

apparatus cannot be sold without incandescent lamps. Such lamps have only a limited lifetime, and in order to continue the operation of such plants it is necessary that the lamps be renewed as fast as they are worn out.

The said *Westinghouse Company* and the said *United States Company* had, prior to the granting of the said injunction against your petitioner, invested several millions of dollars in the business of manufacturing apparatus for use with such incandescent lamps, and this investment will be substantially valueless if a proper supply of incandescent lamps can not be obtained, since no purchasers can be found for such apparatus unless they are supplied with lamps for use with it.

The said *Westinghouse Company* and the said *United States Company* had, prior to the granting of said injunction, sold and installed more than fifteen hundred electric-light plants involving the use of such incandescent lamps. More than four hundred of the said plants were central-station plants supplying electric light to the public in various cities and towns in all parts of the country as gas is supplied by gas companies, and the purchasers of these plants so installed by the said companies had invested about twenty-five million dollars in the same.

Substantially all of this investment will be without value in case a proper supply of incandescent lamps cannot be procured for continuing the operation of such plants. The stoppage of such plants would also be a great inconvenience to the public supplied with light by them.

Your petitioner avers that if the *Edison Electric Light Company*, the complainants' predecessor in interest, had brought suit on the said patent promptly when the said *United States Company* entered the business in 1880, or when the said *Consolidated Company* entered

the business in 1882, a decision at final hearing could have been had before your petitioner was organized and before the said *Westinghouse Company* entered the business, which was in the year 1886; and further avers that the investment of capital in the said business by your petitioner, the *Westinghouse Company* and the *United States Company*, and the purchasers of electric-lighting plants installed by the said last-named companies, resulted directly from the long-continued delay of the complainants and their predecessor to assert any rights under the said letters patent.

And your petitioner, therefore, further avers that it was error for the said Circuit Court of Appeals not to reverse the said *pro forma* decree of said Circuit Court and direct that the said decree be vacated, by reason of the laches of the complainants and their predecessor and the injury necessarily resulting from said injunction to the general public and to the vested interests called into existence by such laches.

Seventh. Prior to the bringing of the said suit against this petitioner, and after the decision of the Circuit Court in the said suit against the *United States Company*, the said complainants entered into a combination with various other corporations engaged in the business of manufacturing and selling electrical apparatus in the following manner:

Prior to the formation of the said combination there were a considerable number of separate companies competing with each other in the manufacture and sale of apparatus for the production of electric light and power. Among these were the *Edison General Electric Company* and the *Edison Electric Light Company* (the said complainants), the *Thomson-Houston Electric Company*, of Boston, Mass., the *Brush Electric Company*, of Cleveland, Ohio, the *Sprague Electric Railway Company*, of New York, the *Fort Wayne Electric Company*, of Fort Wayne, Ind., the *Van De-*

poele Electric Company, of Chicago, Ill., the *Short Electric Railway Company*, the *Schuyler Electric Light Company*, the *Excelsior Electric Company*, and the *Westinghouse Electric and Manufacturing Company.*

Each of these companies was manufacturing under its own separate patents; they had factories in different States, and were selling the product of such factories in active competition with each other throughout the several States of the Union.

Prior to the Spring of 1892 the *Edison General Electric Company* had obtained control of some of the said corporations, and the *Thomson-Houston Electric Company*, a Connecticut corporation having its principal place of business at Boston, Mass., had obtained control of the others, with the exception of the *Westinghouse Company*, by purchasing or otherwise acquiring the capital stock of such corporations; and the said two corporations, the *Edison General Electric Company* and the *Thomson-Houston Electric Company*, with the companies so controlled by them, included nearly all the competitors of the *Westinghouse Company* in the business of manufacturing and selling apparatus for the production of electric light and power.

In March or April, 1892, an agreement was made between the said two corporations for a combination of their interests. A special charter was thereafter obtained by their procurement from the New York Legislature, incorporating a certain company under the name of the *General Electric Company* with a capital of one hundred thousand dollars; and having secured this charter with this low capitalization, and before beginning active business, and by an obviously fraudulent violation of the law authorizing its existence, the said *General Electric Company* immediately increased its capital stock to fifty millions of dollars and exchanged the greater part of said stock for substantially all the stock of the said *Edison General Electric Company* and

the said *Thomson-Houston Electric Company.* Under the combination and organization so effected the said *Edison General Electric Company* and the said *Thomson-Houston Electric Company* and the various companies owned and controlled by them maintained their separate corporate organization and formal existence and continued to hold the title to their factories and patents and nominally to conduct the business of manufacturing and selling electrical apparatus in competition with each other; but their stock was owned by the said *General Electric Company,* and their operations were in fact entirely directed by it and all their profits were paid into the common pool controlled by the said *General Electric Company.*

Upwards of one thousand patents are owned by the various subordinate companies so controlled by the said *General Electric Company,* and factories in various States of the Union are owned and operated by them under the direction of the said *General Electric Company,* and the product of the said factories is sold under the direction of the said *General Electric Company* throughout the several States of the Union.

Eighth. And your petitioner avers that the said *General Electric Company* was formed for the purpose of monopolizing the trade and commerce among the several States in apparatus for the production of electric light and power, and is a combination in restraint of such trade and commerce within the meaning of the Act of Congress approved July 2, 1890, and entitled "An Act to Protect Trade and Commerce against Unlawful Restraint and Monpolies," and is therefore illegal.

Ninth. And your petitioner further avers that the injunction against it in the said suit was sought by the said complainants under the direction of the said *General Electric Company,* in aid of the purposes of the

said unlawful combination, and for the purpose of destroying the business of your petitioner and of the said *Westinghouse Electric and Manufacturing Company*, or compelling them to join the said combination, and thereby securing a complete monopoly of the said business for the said *General Electric Company*, and that it was error for the said Circuit Court of Appeals not to reverse the said *pro forma* decree of the Circuit Court, and direct that the said decree be vacated for that reason.

Tenth. And your petitioner further shows that after the decision of the said Circuit Court of Appeals in the said suit against your petitioner the complainants therein, acting under the direction of the said *General Electric Company*, brought suit on the said letters patent No. 223,898 against the said *Westinghouse Electric and Manufacturing Company* in the United States Circuit Court for the Western District of Pennsylvania, and upon motion made therein for an injunction *pendente lite*, based upon the adjudications previously had in the Second Circuit as above set forth, the injunction was granted on the 27th day of December, 1892, and a writ of injunction was thereupon issued and is still in force restraining the said *Westinghouse Company* from making, using or selling any incandescent lamps infringing the second claim of the said letters patent; that similar injunctions have since been granted against other manufacturers of incandescent lamps, and that the said complainants and the said *General Electric Company* assert and contend that all incandescent lamps made in this country, and all incandescent lamps which can be made so as to be operative or useful, infringe the said second claim of the said letters patent.

Eleventh. Your petitioner further avers that the said *Westinghouse Electric and Manufacturing Company* is manufacturing and putting upon the market, and offer-

ing to supply its customers with, another and different incandescent lamp from that which was held to be an infringement in said decisions above set forth, and which, as your petitioner and the said *Westinghouse Company* are advised and insist, does not infringe said letters patent No. 223,898, but the said complainants and the *General Electric Company* owning or controlling said letters patent allege the contrary, and assert that said newly manufactured lamps fall within the scope of said decisions and infringe said patent.

That, owing to said contention on the part of the said *Edison Companies*, many users of the Westinghouse apparatus are unwilling to use said new lamps, and that the said *Westinghouse Company* is ready and willing, in all cases where the users of its apparatus so prefer, to furnish them with the Edison incandescent lamps, if it can obtain them on the same terms as any other purchasers; but so it is, that the said complainants, acting under the direction of said *General Electric Company*, threaten that they will not furnish lamps for use with any apparatus sold or installed since July, 1891, other than the apparatus made and sold by one or the other of the various companies combined together and controlled by the said *General Electric Company*, and thereby threaten not only to destroy the business and capital of the said *Westinghouse Company*, but to deprive the public of the advantage of the use of the Westinghouse apparatus, and of the competition which its manufacture and sale affords. The said apparatus has great and peculiar advantages of its own, is extensively used to supply light and power to cities and towns and for factories, public buildings and private users throughout the United States, as above stated, and is, and has been, sold and installed in competition with the apparatus made and sold by the companies controlled by the said *General Electric Company*, and, as your petitioner avers, is a superior apparatus to any which the companies controlled by the said *General Electric Company* are able

to furnish the public; but, if the complainants are permitted to carry out their scheme, which the said injunction affirmed by the Circuit Court of Appeals allows them to do, by refusing to supply lamps to those already using said Westinghouse apparatus or who would, but for said threatened refusal to supply lamps, purchase and use the said apparatus, they can deprive the public of the advantage of using an apparatus which the said *General Electric Company* cannot itself supply, and which is not covered by said letters patent under which said injunction was granted, and can create a monopoly, not only in lamps, but in all apparatus for supplying electric current for light and power, to the great and manifest injury of the public.

Twelfth. And your petitioner further shows that such refusal to sell lamps would, if permitted, work irreparable injury to the said *Westinghouse Company* and its customers and also the general public, and it avers that it was error, especially in view of the laches of the complainants and their predecessors, for the said Circuit Court of Appeals not to require as a condition of granting the said injunction that the said complainants should supply lamps on reasonable terms to the *Westinghouse Company* and its customers.

Thirteenth. Your petitioner further shows that since said decisions above noted and the injunction in this cause, a preliminary injunction was, on the 21st day of April, 1893, refused by the United States Circuit Court for the Eastern District of Missouri, in a suit brought by the said complainants upon the said Patent No. 223,898, upon the defendant's giving security in the sum of twenty thousand dollars. The said refusal was based upon affidavits showing the prior invention of the incandescent lamp of said patent by one Goebel, which testimony was not presented in this cause, because the evidence in regard to said prior invention was

not known to defendant or its counsel therein. That upon a prior application for a preliminary injunction made in a suit brought for the infringement of said patent in the United States Circuit Court for the District of Massachussetts, the said Court granted the injunction, notwithstanding the testimony produced in support of said Goebel anticipation.

Fourteenth. And your petitioner further shows that it has caused a duly-certified transcript of the record in the Circuit Court of Appeals for the Second Circuit of the said suit against it to be filed in this Court for use in connection with this petition.

Fifteenth. And your petitioner further avers that the present case is one in which it is proper for this Court to issue a *Certiorari*, for the following reasons:

1. The case involves the construction of the Act of Congress of July 2, 1890, relating to trusts and combinations in restraint of trade, which is of great importance, not only to the litigants in this case, but to the public generally as settling questions not yet authoritatively adjudicated in regard to the legality of numerous combinations on the general plan of that pursued in the organization of the *General Electric Company.*

2. The case vitally affects a large industry of great and increasing importance to the public, and will go far toward determining whether the manufacture and sale of all apparatus for producing electric light and power for the whole United States shall be monopolized by a single concern.

3. The amounts involved are extremely large. Investments amounting to several millions of dollars are directly and vitally affected by the injunction, and a still larger amount is affected indirectly.

4. The case involves important questions of equity jurisprudence which have not yet been settled by this Court, and in regard to which the decisions of the Circuit Courts differ, namely, whether, even assuming the legality of the combination between the *General Electric Company*, the *Edison General Electric Company* and the *Thomson-Houston Electric Company* as above set forth, equity will exercise the power of injunction to aid or encourage such a combination in its scheme of monopolizing a great industry such as that of incandescent electric lighting, and whether equity will grant injunctions under a patent where the owner seeks such injunction for the avowed or manifest purpose of controlling other inventions and constructions than those covered by the particular patent in suit.

Wherefore your petitioner prays that this Honorable Court will be pleased to grant a writ of *certiorari* requiring the case above referred to of *Edison Electric Light Company* and *Edison General Electric Company* against *Sawyer-Man Electric Company* to be certified to this Honorable Court for its review and determination.

SAWYER-MAN ELECTRIC CO.,
By G. W. HEBARD,
President.

KERR & CURTIS,
Solicitors for Petitioner.

STATE OF NEW YORK,
City and County of New York, } ss.:

GEORGE W. HEBARD, being duly sworn, deposes and says:

I am president of the Sawyer-Man Electric Company, the above-named petitioner, and have read the foregoing petition. The same is true of my own knowledge, except as to those matters which are stated upon information and belief, and as to those matters I believe it to be true.

GEORGE W. HEBARD.

Subscribed and sworn to before me this 24th day of April, 1893.

LORENZO C. CARUANA,
Notary Public,
Kings County,
Certificate filed in New York Co.

We hereby certify that we have examined the foregoing petition, and that in our opinion the petition is well founded, and the case is one in which the prayer of the petition should be granted by this Court.

EDMUND WETMORE,
SAMUEL A. DUNCAN,
LEONARD E. CURTIS,
Counsel for Petitioner.

MESSRS. DYER & SEELY,
Solicitors for Edison Electric Light Company and Edison General Electric Company, 36 Wall St., New York:

GENTLEMEN—You will please take notice that the foregoing petition will be presented to the Supreme Court of the United States, at the City of Washington, on Monday, the first day of May, 1893, at the opening of the Court on that day, or as soon thereafter as counsel can be heard, and a motion made that the prayer of the said petition be granted.

Very respectfully,

KERR & CURTIS,
Solicitors for Sawyer-Man Electric Company, Petitioner.

Received a copy of the foregoing petition and notice this 24th day of April, 1893.

DYER & SEELY,
Solicitors for Complainants.

Office Supreme Court U. S.
FILED.
MAY 1 1893
JAMES H. McKENNEY,
CLERK.

UNITED STATES SUPREME COURT.

IN THE MATTER OF THE PETITION

OF

SAWYER-MAN ELECTRIC COMPANY,

FOR A

WRIT OF CERTIORARI, &c.

BRIEF FOR PETITIONER IN SUPPORT OF THE APPLICATION FOR THE WRIT.

KERR & CURTIS,
Solicitors for Petitioner,
120 BROADWAY,
New York City.

EDMUND WETMORE,
ELIHU ROOT,
SAMUEL A. DUNCAN,
LEONARD E. CURTIS,
Counsel for Petitioner.

C. G. Burgoyne, Walker and Centre Streets, N. Y.

IN THE SUPREME COURT OF THE UNITED STATES.

IN THE MATTER

OF

The Petition of the SAWYER-MAN ELECTRIC COMPANY for a Writ of *Certiorari* to bring up the case of *Edison Electric Light Company et al. vs. Sawyer-Man Electric Company* for review and determination.

Brief in Support of Petition.

This is a petition for a writ of *certiorari* to bring the above entitled case of *Edison Electric Light Company et al vs. Sawyer-Man Electric Company* (pending in the Circuit Court for the Southern District of New ~~York~~) before this Court for its review and determination.

The bill in the case was brought for the infringement of Letters Patent No. 223,898, granted to Thomas A. Edison January 27, 1880, for an Improvement in Incandescent Electric Lamps.

This patent had been sustained in a prior suit in the same Court against another defendant. A motion for preliminary injunction was made in the present case, upon the hearing of which in the Circuit

Court no question was raised as to the validity of the patent, or the fact of infringement; but certain questions were raised as to the right of the complainants to an injunction, because the same was sought in furtherance of an illegal trust or combination, and, also, because of the laches of the complainant.

A *pro forma* order was made by the Circuit Court granting the injunction (Record, p. 231), from which an appeal was immediately taken to the Circuit Court of Appeals, where the order was affirmed.

The opinion in the case is reported (53 Fed. Rep., p. 592), and is printed in the record at pages 239 to 245.

Section 6 of the Act establishing the Circuit Courts of Appeals provides that in certain cases, including cases arising under the patent laws, "it shall be competent for "the Supreme Court to require by *certiorari* or *otherwise*, "any such case to be certified to the Supreme Court for "its review and determination with the same power "and authority in the case as if it had been carried by "appeal or writ of error to the Supreme Court."

It is understood that, under this section, it is within the *power* of this Court to bring up a case by *certiorari* at any stage of its proceeding, and not only after final judgment. The question which always arises is as to the propriety of exercising that power.

The general principles by which the Court will be guided in that behalf have received elaborate consideration in the late case of *American Construction Co. vs. Jacksonville, &c., Railway Co.*, decided by this Court at the present term, wherein it is stated that the jurisdiction thus conferred should be exercised only in cases of "peculiar gravity and general importance," and that the action of the Court of Appeals on an appeal from

an interlocutory order should not be brought up for review upon *certiorari* "unless it is necessary to pre- "vent extraordinary inconvenience and embarrassment "in the conduct of the same."

The petitioner submits the following statement of the questions involved in the ruling of the Circuit Court of Appeals in this case, and of the consequences which follow from said ruling, to show that it is a case in which, under the principles laid down in the decision quoted, a *certiorari* may properly issue.

The questions presented are:

FIRST. Whether an injunction will be granted in favor of the owner of a patent, when that owner has united with the owners of other patents to form a combination in restraint of trade or commerce among the several States, by means of said patents, and where said injunction is directly calculated to aid said combination or trust to carry out its unlawful or oppressive purpose.

SECOND. Whether, in a case where, owing to the laches of a complainant, a new industry has reached such a growth that it employs many millions of capital, and employs many thousand workmen, and gives the public the benefit of competition in furnishing artificial light for public and private

use throughout the United States, the whole existence of that business should be threatened by an injunction granted in favor of the party guilty of such laches.

The facts, upon which the first question arises, may be briefly summarized as follows:

Within the past fifteen years the business of manufacturing and selling apparatus for the generation and distribution of electricity for the purpose of furnishing light and power has become enormous. Beginning with the improvements in the magneto-electric machine and its transformation into the modern dynamo, whereby a means of generating a powerful and sustained current of electricity sufficient for commercial purposes was first given to the world, the art of applying electricity to lighting and as a motive power for traction and other purposes has developed with great rapidity and to a wonderful extent, until the business of supplying the necessary apparatus employed in that art has become one of the important manufacturing interests of the country and the subject of a large trade among the several States of the Union.

This new field of industry has attracted inventors, both here and in foreign countries; and in this country especially, during the period referred to, a vast number of patents have been issued for improvements in a great variety of apparatus for the production and transmission of electricity and its translation into light or power.

This business has given rise to the establishment of a number of manufactories in different parts of the country, which have supplied "plants," so-called, for

furnishing cities or towns with electric light, or for furnishing electric current for running street railroads, or supplying electricity to mill owners, or other private users, for the various purposes, such as producing light and power, to which it is put. With the exception of the Westinghouse Company, which is the real party in interest in the suit, and a few small outlying establishments, all the manufacturers of electrical apparatus, became gradually absorbed by either the Edison General Electric Company or the Thomson-Houston Electric Company, and then, by the union of these two interests, a great trust or combination was formed under the name of the General Electric Company, having a capital of fifty millions of dollars ($50,000,000), and owning or controlling over a thousand patents, the object of which is to monopolize the entire business of making and selling electrical apparatus in this country.

The Westinghouse Company, which is a competitor of this combination, has a system of its own, particularly advantageous for the economical transmission of electricity to a great distance for either light or power, consisting of dynamos, converters, meters, regulators and a great number of appliances for the generation and transmission of electricity; and this system has been very extensively adopted throughout the United States, so that the capital which has been invested therein by purchasers amounts to some twenty-five millions of dollars ($25,000,000). These plants are sometimes used exclusively for lighting, but very often for furnishing both power and light. They constitute, in some four hundred instances, the central stations from which light and power are supplied to cities and towns.

The Westinghouse Company is engaged in the business of furnishing these plants to the public; and, if it is prevented from continuing so to do, not only will the capital of the company be destroyed and thousands of workmen thrown out of employment, but the public will lose the great benefit of having the opportunity to supply itself with the Westinghouse apparatus, which, as the result of inventive skill of a high order and the expenditure of much labor and capital, has been brought to great perfection.

Among the patents controlled by the General Electric Company is the Edison Patent No. 223,898, mentioned in the petition, the legal title to which is held, or claimed to be held, by one of the complainants in the case now in question.

The *second* claim of this patent has been held by the United States Court of Appeals for the Second circuit to cover certain features which are common to all the incandescent electric lamps which have been made and sold in this country for many years yast, including that made for the Westinghous Company by the Sawyer-Man Company, the defendant in the case in question, and the petitioner herein.

The Westinghouse Cempany is now making a lamp of different construction, and one which it claims and insists is not an infringement of said patent. The complainants and the General Electric Company claim the contrary. Many users of the Westinghouse plants are unwilling to use this new lamp on account of these claims of the complainants and many of those who desire to adopt the Westinghouse system are unwilling to do so as long as there is any doubt

about their ability to supply themselves with lamps, and if they cannot be assured of obtaining such a supply, either from the Westinghouse Company or from the complainants, they will be forced to give up the idea of purchasing the Westinghouse apparatus, and that apparatus will be gradually driven from the market.

Taking advantage of this situation, the General Electric Company takes the position that it will not supply lamps either to the Westinghouse Company or to any of its customers for any future plants the said Westinghouse Company may instal, thus forcing the public to relinquish the benefit of using any apparatus for the generation and transmission of electricity for lighting purposes except the apparatus furnished by one or the other of the companies controlled by the General Electric Company, and thus securing a monopoly of the whole trade and business ; since the demand for such plants for power alone where no lights are used is insufficient to maintain a manufacturing establishment. Practically all plants that furnish power are also used more or less to furnish light, and could not be sold if no lamps could be used upon their circuits.

It was contended on the part of complainants that this result could not be regarded by the Court in determining the propriety of granting an injunction ; that, the patent having been sustained and a construction given to it that left no question as to infringement, the injunction, preliminary or final, followed as a matter of course ; that, no matter how clearly it might appear from undisputed facts that the combination which was the real owner of the patent was illegal and formed

in violation equally of the law of the State of New York under which the General Electric Company was organized, and of the Act of Congress of the United States, that question could not be considered in ths suit; that, although the effect of the injunction was to enable the said General Electric Company to accomplish an object declared to be unlawful, such effect was an incident to the injunction which could not be taken into account; that the complainants, though a mere agent for the combination to which they had transferred their whole stock, could only be regarded as the holder of the legal title to the patent and entitled to enforce it, without reference to the effect of such enforcement in carrying out such illegal scheme; that the owners of the patent had the right to use it as an indirect means of coercing the public into purchasing other apparatus not covered by the patent in suit or by any patents owned by the complainants, but which it was necessary for them to force the public to buy in order to enable them to maintain an unlawful monopoly, and to drive other apparatus from the field; that, however disastrous this might be to private interests or however detrimental to the public, it could not affect the complainants' right to an injunction, and that, while in case of the arbitrary refusal on the part of the General Electric Company in any particular instance to supply lamps to the users of central-station or other plants erected before the date when the patent was judicially sustained, an application for redress might be made to the Court, no restriction could be placed upon the power of the said General Electric Company to take advantage of the injunction to break up competition in the general business of installing such plants for the future and obtaining a grasp upon the business which

should enable it to maintain a monopoly therein long after the expiration of the patent which had been the subject of controversy.

The petitioner, in opposition to this view, contends that, where the illegal character of a combination depends upon undisputed facts, and is manifest upon the face of the proceedings, and the company which constitutes said combination is the actual, though not the nominal party complainant, the Court may, and should, take notice of its illegal character, even though that fact has not been determined by *quo warranto* or other judicial proceedings directly instituted for that purpose; that the owner of a patent who has contributed his patent to an unlawful combination does not, of necessity, retain the same rights in regard to its enforcement as if he had not done so, and by combining his property with that of others for a common unlawful end may forfeit the right to remedies he would otherwise retain; that it is good reason for refusing an injunction that threat is made to use it for an unconscionable or illegal purpose; that, cutting through all mere forms and looking at the real heart and gist of the matter, the obvious result of the injunction is to place in the hands of the General Electric Company the means, not merely of protecting its monopoly in the subject matter of the patent in controversy, but of driving out all competition in the manufacture and sale of electric light and power apparatus generally, and compelling the people of the United States to use only such electric apparatus for the general purposes of light and power as the combination may furnish, at such prices as it may fix, and of securing for the combination a monopoly in a large manu-

facturing industry forming the subject of an extensive interstate commerce and trade throughout the Union, such as it was the very object of the Act of Congress and the statutes of the State of its organization against trusts and combinations, to prevent.

The petitioner submits that the Court should not disregard these consequences; that the object for which the injunction is sought being, by reason of the combination which the owner of the patent has joined, an object forbidden by law, the case is different from one in which, whatever the consequences, the policy of no statute bearing directly upon the question is contravened.

Whatever views may be entertained as to the wisdom of that policy in this case, it is the province of the Courts to carry out the spirit of the statutes, and to refuse to grant an extraordinary remedy which is sought primarily for the purpose of baffling the object of those statutes, and where the granting of it would directly aid in defeating that object.

The art of applied electricity has assumed great importance and involves vast interests. It is a business which is the outgrowth of daily multiplying inventions. Neither steam, gas, nor any other of the natural sources of power, in their application to the useful arts, has been developed with the same rapidity, or under the same circumstances, as in the case of electricity. The scheme of controlling a whole branch of industry affecting so nearly the interests and convenience of the public, by means of buying up all the patents relating thereto, has never before been put in practice on so large a scale, because an equal opportunity has not before arisen.

Such a monopoly as the General Electric Company was organized to establish is within the prohibition of existing legislation, and it is a question of the very highest interest and importance whether this prohibition has, or has not, any effect upon the discretion which Courts should exercise in granting injunctions.

By reference to the opinion of the Court in this case it will be seen that it was regarded as a circumstance which could not be taken into consideration in such cases, and was not allowed to influence the decision in the case at bar. On this point the Court said (record, p. 243):

> "We are not disposed to investigate upon the present case the character of the combination which has been formed under the name of the 'General Electric Company.' Whether that combination is intended to fetter competition, and is illegal as one in restraint of trade, is a question which we should not undertake to decide upon the evidence before us and in a suit to which it is not a party. The present complainants are entitled by the patent laws to a monopoly, for the term of the patent, of the manufacture and sale of the lamps made under it. The right to this monopoly is the very foundation of the patent system. They do not lose that right merely because they may have joined in a combination with others, holding other patents securing similar monopolies, which combination may, when judicially examined in a proper forum, be held to be unlawful."

The *second* question, namely, the effect which *laches* should have upon the granting of an injunction, where, under the peculiar circumstances that have attended

the growth of the electrical business in this country, an industry has attained the dimensions that have been reached by the business against which the injunction in this case was granted, is one demanding the most serious consideration, because of the magnitude of the interests involved.

It is conceived that the object of the present brief is simply to point out the nature of the questions involved in the case which the petitioner seeks to have removed into this Court by *certiorari*, in order to enable the Court to determine whether the case is one proper to be removed.

The foregoing statement will sufficiently disclose the character of those questions.

The following points are added, however, in support of the petitioner's view as to the manner in which, as it contends, those questions should be decided, in order that the Court may see more clearly what are the issues which it is desired to present for its determination.

FIRST POINT.

The injunction should have been refused because the General Electrical Company, the real party in interest, intends to make an unconscionable and inequitable use of it, injurious to the general public, as well as to the parties defendant in the suit.

The record shows that the General Electric Company intends to make use of the monopoly of incandescent lamps it hopes to obtain under the patent in suit to destroy the busines of the Westinghouses Company (its only remaining competitor of any importance) in the manufacture and sale of dynamo machines and other apparatus besides incandescent lamps; and it proposes to accomplish this by refusing to supply any lamps for use with Westinghouse plants hereafter installed (see affidavits of Westinghouse, record, p. 288*; Bannister, 294; Pike, p. 283; and Barnes, Marshall, Sharp, Robinson, Humphrey and Hubner, pp. 306–319).

It also proposes to use the monopoly of incandescent lamps which this injunction, and similar injunctions against other manufacturers of lamps would give it for the purpose of forcing all central-station companies using Westinghouse dynamos to discard them and purchase machines made by the Thomson-Houston Company, or the Fort Wayne Company (one of the constituents of the General Electric combination which was formerly owned by the Thomson-Houston Company).

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*The references to the record are to the pages as printed below the side paging as printed in this court.

In the confidential circulars issued to its agents by the General Company soon after the combination was formed, the following instructions are given (italics ours):

"DEAR SIR—One of the most direct results arising from the consolidation of the Thomson-Houston and Edison Companies' interest will probably be the decision of the lamp suits, thus giving to the General Company the *entire control of the manufacture of incandescent lamps.*

"*We are desirous of taking advantage of this situation immediately, and to bring every station using Westinghouse apparatus to a realization of the position in which they will be placed in using Westinghouse apparatus by the control which the General Company will have of the lamp patents.*

"Suits are now pending in the United States Courts, by the result of which it is probable that the exclusive patent right on the incandescent lamps will be given to the Edison Company. With the result, *an injunction will probably be served against every company using lamps other than that of the Thomson-Houston and Edison make,* and it is probable that judgments can be secured against such companies for the payment of large royalties upon the lamps that they are using or have used of other systems.

* * * * *

"We suggest now to our agents that they *approach each station using Westinghouse apparatus* with a proposition to free them from the liability by the exchange of the apparatus they are using for that adopted and used by the allied interests of the General Company; *this will, of course, in every case be the Thomson-Houston or Fort Wayne.*"

Record, pp. 316, 317.

The significance of the great anxiety manifested by the combination to force such an exchange of generating apparatus is apparent from the fact that it would bring all stations consenting to such exchange under the operation of an old contract between the Thomson-Houston Company and the petitioner (to which also the Westinghouse Company is a party)—record, pages 258–283, under which the Westinghouse Company and the petitioner would be precluded from supplying lamps to such plants until the year 1902—thus perpetuating to the combination its lamp monopoly long after the expiration of the patent.

A further reason for selecting "Thomson-Houston or Fort Wayne" machines instead of the Edison to substitute for the Westinghouse machines will be found in the fact that these stations use the alternating-current system, and the Edison Company does not and cannot make any apparatus of this kind; the alternating-current system occupies a field which could not be reached with the Edison direct-current system (Hebard, p. 218).

It is quite easy to read between the lines of this circular that the real force to be brought to bear upon the central-station companies to induce them to make the exchange was the suggestion that their supply of lamps might otherwise be cut off by injunction, and the whole plant thus rendered worthless.

The General Electric Company also proposes to use the injunction for the purpose of intimidating central-station companies into accepting oppressive and inequitable contracts binding them to purchase all electrical apparatus from the General Company for a term of years, and prohibiting them from contesting the

validity or scope of any of the numerous patents controlled by it (Westinghouse, p. 231 ; Bannister, p. 294).

The following provisions are contained in the form of contract published in the *Electricity Article* (record, p. 287), and referred to in the affidavit of Mr. Westinghouse (p. 231) as that which the General Electric Company is endeavoring to force upon central-station companies.

> " The licensee [Central-Station Company] agrees and covenants that it will at all times hereafter admit the validity of the letters patent now or hereafter owned by the licensor [General Electric Company], or under which it has or shall have a license.
>
> " *The licensee agrees not to violate or infringe said letters patent, or any of them, nor contest either the validily of the same, or the scope of the claims thereof,* or the title of the licensor thereto, nor aid or encourage others in so doing.'

The oppressiveness and inequity of this contract will be apparent from the fact that *the General Company controls more than a thousand patents, many of which have vague and indefinite claims, susceptible, if not contested, of a construction broad enough to cover all forms of apparatus in use, but of no value if properly contested* (Westinghouse, p. 232).

Even in its ordinary proposals for the sale of apparatus, the General Company injects *a license under all its patents,* and requires the purchaser to agree not to contest their validity and *not to use apparatus of any other make in connection with the apparatus it furnishes* (record, p. 290).

These contracts are so manifestly oppressive and unfair that the central-station companies would not accede to them under any circumstances, unless compelled to do so in order to procure a supply of lamps to continue their business (Westinghouse,).

None of these facts were in any way denied or disputed by complainants.

Upon these facts petitioner contends as follows:

I.

It is an established principle of courts of equity that the owner of a patent shall not be allowed to make an oppressive, unjust or unconscionable use of it; and the Courts will lend their aid, whether by withholding an injunction or by issuing a mandamus, as the case may be, to prevent such abuse of the grant conferred by letters patent.

Robinson, in his work on Patents, Vol. 3, Sec. 1196, says that:

> "The improper purposes for which plaintiff intends to employ the injunction, should it be allowed, are also a sufficient ground for its refusal. An injunction is designed to preserve existing rights, not to punish past injuries nor indirectly prejudice the defendant by placing him within the plaintiff's power.
>
> * * * * * *
>
> "If, as a protection against infringements, it is of small importance to the plaintiff, *and is desired by him chiefly to compel the defendant to act or to*

refrain from acting in other matters, or to enforce a recognition of plaintiff's rights from third parties, the Court will ordinarily decline to interfere."

In *American Pavement Company vs. City of Elizabeth* (4 Fish., 189) Judge STRONG refused to grant an injunction except as defendant should omit to furnish a bond for the payment of such sum as might ultimately be awarded to the plaintiff. In stating the conclusion reached by him, his Honor used this significant language :

"We have said nothing of the appearance this motion has of being an attempt to compel the City of Elizabeth to give the contract for paving to the complainants rather than to their competitors in bidding for it, though the bid of their competitors was lowest. *A preliminary injunction against infringement cannot be resorted to for any such purpose.*

"The injunction will, therefore, be refused if the defendants give a bond in the penal sum of $30,000, conditioned for the payment of such sum (if any) as may be decreed in favor of the complainants on the final hearing of this cause."

In *Parker vs. Sears* (1 Fish., 93), Judge GRIER refused an injunction under a patent that had been sustained in an action at law, on the ground, among other things, that the injunction was designed to shut up defendant's mills and thus give plaintiff means of coercing the defendants into a settlement upon unreasonable terms. His Honor said :

"With regard to the last ground of objection to granting the present motions, we would remark—the chief object of issuing such writs before final

hearing of the cause, is to prevent irreparable mischief, *not to give the complainant the means of coercing a compromise on his own terms* from the inevitable injury that defendants must suffer by the stoppage of their mills and manufactories."

In *Sanders vs. Logan*, 2 Fish., 167, Judge GRIER said.

"The injunction is not to be used as an execu-
"tion or for extortion."

The rulings of the Courts in the mandamus suits brought to compel the telephone companies to grant licenses to use telephonic instruments are especially instructive, as bearing upon the present question.

The right of a telephone company to license one telegraph company to use its instruments, and to refuse the use of its instruments upon equal terms to another telegraph company, was elaborately discussed by Judge WALES in *State of Delaware ex rel. Postal Telegraph Cable Company vs. Del. & Atlantic Tel. & Tel. Co.* (47 F. R., 633), and by Judges ACHESON, BUTLER and GREEN in the same case on appeal (50 F. R., 677).

The defendant held a license from the National Bell Telephone Company, giving it the exclusive right in a defined territory to use and rent telephonic instruments, but subject to the condition that defendant should not supply telephone instruments to any *telegraph* company for *telegraphic* purposes, without the consent of the licensor. This condition was made pursuant to a contract between the Bell Telephone Company and the Western Union Telegraph Company, whereby the latter company had acquired the exclusive right of using telephone instruments for telegraphic purposes. The

The Postal Telegraph Cable Company sought by a mandamus to compel the local telephone company to rent instruments to it.

The mandamus was awarded as prayed for, the Court holding that the telephone business was akin to that of a public warehouseman or a common carrier; and, consequently, that the Court would not respect any contract entered into by the telephone company whereby it had undertaken to discriminate in the granting of licenses for the use of its instruments. Referring to that part of the contract with the Western Union Telegraph Company which related to the exclusive use of the telephone for the purposes of telegraphy, Judge WALES said:

> "The enforcement of this part of the contract would violate the rule that, when the use of a patented device is thrown open to the public, or to classes of the public, all are entitled to use it on the same terms as others in the same class; and, therefore, any contract or agreement which would effectually evade the rule must be declared void as being against public policy."

So, also, when the case came before the full bench on appeal, the Court said:

> "The object * * * of the contract * * * between the Western Union Telegraph Company and the National Bell Telephone Company was to accomplish a result which the law forbids. In other words, it was to effect precisely what has occurred—the establishment of a system of telephone lines and exchanges to carry telegraphic messages, as well as others, which should be so conducted as to confer a monopoly on one telegraph company."

A similar question was discussed by Judge BREWER in *State of Missouri vs. Bell Telephone Co.* (23 F. R., 539). The question there involved was whether the Court could compel the defendant, managing the telephone business in the City of St. Louis, to establish communication with any other individual or company than that permitted by its license from the owner of the patents under which the telephones were made. Judge BREWER said :

> " A telephonic system is simply a system for the transmission of intelligence and news. It is, perhaps, in a limited sense, and yet in a strict sense, a common carrier. * * * The moment it establishes a telephonic system here, it is bound to deal equally with all citizens in every department of business ; and the moment it opened its telephonic system to one telegraph company, that moment it put itself in a position where it was bound to open its system to any other telegraph company tendering equal pay for equal service."

The principle underlying these telephone suits (as well as many others cited by Judge WALES in 47 F. R., especially the warehouse case of *Munn vs. State of Illinois*, 94 U. S., 113), seems to be this :

That private property may become dedicated sub modo to public use, and thus be brought under public control ; and whenever private property, whether a patented invention or otherwise, is thus subjected to a quasi public use, the Courts will exercise their power to see that no unjust discriminations are made. The same principle that would lead the Courts, in pursuance of this end, to issue a mandamus would also lead them, when necessity

requires it, to refuse an injunction, which otherwise they might properly grant.

American Biscuit Co. vs. Klotz, (44 F. R., 721) is a conspicuous instance in which, although as *inter partes* the equities were all on the side of the plaintiff, the Court refused an injunction because of the unconscionable use which the plaintiff would be likely to make of it if granted.

In that case the plaintiff corporation had been organized for "the manufacture and sale of biscuit and confectionery;" but, pursuent to this purpose, it had adopted the policy of buying up the stock of other and competing companies engaged in a similar business, and thus controlling such companies in its own interest. The defendant had usurped one branch of plaintiff's business, and thereupon plaintiff applied for a Receiver of the business thus carried on by the defendant. The Court said:

> "The complainant's business, even if lawful * * * is not of that meritorious kind that it should be encouraged by a conrt of equity." * * * The case falls within that class of interlocutory remedies which courts must grant or withhold according to a discretion conscientiously exercised, upon a consideration of all the facts which a cause presents, involving the rights of the parties and the interests of the public. * * *
>
> "Whatever we may feel compelled to do, on the final hearing of this cause, towards recognizing the complainant's legal rights, and compelling a faithless trustee to account, we are clear that at this preliminary stage, with our present impressions of the character and general scope of complainant's business, the Court ought not, by the appointment of a receiver, to aid complainant to

perfect, and perhaps to enlarge, his combination or trust."

Pope Manufacturing Co. vs. Gormully (144 U. S., 236) is also an instructive case.

The plaintiff sought the aid of the Court to enforce a contract under which the defendant, as a condition of getting a license under certain patents, had agreed to respect certain other patents. The Supreme Court said :

> "But whether the contract be absolutely void, as contravening public policy or not, we are clearly of the opinion that it does not belong to that class of contracts the specific performance of which a court of equity can be called upon to enforce. To stay the arm of a court of equity from enforcing a contract, it is by no means necessary to prove that it is invalid ; from time immemorial it has been the recognized duty of such courts to exercise a discretion ; to refuse their aid in the enforcement of unconscionable, oppressive or iniquitious contracts, and to turn the party claiming the benefit of such contract over to a court of law."

II.

The facts of the present case bring it within the principle of the above authorities, and forbid the granting of the preliminary injunction which has been issued.

The business of furnishing electricity as a source of light and as a motive power has grown to enormous dimensions within the past fifteen years.

It has come into extensive use for both these pur-

poses; it not only furnishes light, but is used in a vast and continually widening field as a source of power. It runs many hundred miles of railroads, and operates innumerable kinds of machinery.

The chief problem which the development of this new art has presented has been to discover and devise a cheap generator of electricity, and practicable and efficient means for transmitting the current to a distance from its source of supply.

The whole art is based upon that. The use of electricity to-day depends upon the capital that has been spent and the innumerable inventions that have been made in bringing agencies by which electricity is generated and supplied to such perfection that it becomes available for a very considerable part of the field heretofore occupied by gas and steam.

The progress of the art in this country gave rise to three large companies, the Edison, the Thomson-Houston and the Westinghouse. The latter company has furnished to the country a system of its own—the result of the expenditure of many millions of dollars, and of the employment of years of skilled labor and scientific research. Its system, making up the entire plant which it furnishes to the public, is used in central stations in cities and towns, and in separate buildings all over the United States. The plants are used to furnish electricity for whatever purpose it may be available—to run lamps, or to furnish motive power—or for both purposes on the same circuit.

The Thomson-Houston Company and the Edison Companies have become constituent members of a great combination under the name of the General Electric Company (the actual, though not the nominal, complainant in this suit, and the beneficial owner of

the patent in controversy). The combination so formed is engaged in the effort to obtain control of the entire electric business of the country, and, to that end, to destroy the business of the Westinghouse Company, the only competitor it is necessary to take into account; for, if the Westinghouse Company were driven out of the business, it is not pretended that there is any of the smaller companies that may here and there exist that could for a moment make head against the power of the combination.

The Circuit Court of Appeals having decided that the *second* claim of the patent in suit covers a fundamental invention in the incandescent lamps now in universal use, and which have been made by the petitioner for the Westinghouse Company and for the users of the Westinghouse apparatus, the injunction granted goes farther than merely affording protection in the monopoly of making and selling such lamps; it enables the combination controlling the patent to employ the injunction for the purpose of depriving the public of the benefit of using the Westinghouse *system* for *any* purpose. This result the General Electric Combination proposes to accomplish by refusing to furnish lamps, on any terms, to those who would, but for their fear that no lamps can be obtained for use with it, purchase Westinghouse apparatus. By this means the managers of the combination expect so to cripple the operations of the Westinghouse Company and to inflict such ruinous losses upon it as to be finally relieved of its competition.

In its attack upon the Westinghouse system the combination is also endeavoring to use the injunction to force unconscionable agreements upon users of Westinghouse plants. Besides the exchange of gener-

ating apparatus which it is seeking to enforce, the General Company is endeavoring to compel central-station companies to enter into agreements binding them to purchase *all* apparatus from the members of the combination for a term of years, and prohibiting them from contesting the validity *or scope* of a thousand patents, most of them running much longer than this patent in suit and many of them worthless.

These unconscionable agreements which it is proposed to extort by means of this injunction would expand the monopoly of the General Company over many other things besides lamps, and extend its duration far beyond the term of the patent.

The decision of the Circuit Court of Appeals, although it provides some measure of protection, though an entirely inadequate one, for users of plants installed prior to the first decision of the Circuit Court in July, 1891, expressly refuses to put any restriction on the use of the injunction so far as concerns new plants of the Westinghouse system and those installed since July, 1891.

It is manifest that the interests of the public must suffer serious injury if the gradual working of the injunction brings about its intended effect and deprives the public of the benefit of the competition which the business of the Westinghouse Company has afforded.

It against public policy to aid the complainants in obtaining the advantage they seek.

I. In the great growth of electric lighting throughout the cities and towns of the Union the incandescent lamp

has become as much a matter of public concern as the telephone. If it is against public policy for the telephone company to give a monopoly of the use of Prof. Bell's invention for telegraphic purposes to *one* telephone company to the exclusion of all others, it seems manifest that it is, on the same principle, equally against public policy to permit the complainants to furnish lamps to the Thomson-Houston and its associated companies alone, and to refuse to furnish them to the petitioner or the Westinghouse Company for the use of *their* customers. The doctrine of *State of Delaware vs. Delaware Tel. Co.* (47 Fed. Rep., 633) and *State of Missouri vs. Bell Co.* 23 Fed. Rep., 539) above cited, therefore, is directly applicable.

II. It is against the public interest, because it aids the complainants in carrying out a plan which, if successful, deprives the public of the peculiar benefits of the Westinghouse system or any other system except the one furnished by the complainants, destroys competition and its corresponding benefits, and checks and discourages further improvements in a rapidly developing art, because only such improvements would prove profitable or would come into general use as the complainants might choose to adopt.

The use which complainants propose to make of the injunction sought is therefore manisfestly unconscionable, and would result in an injury to the public, and the authorities cited above are conclusive to the effect that under such circumstances no injunction should be granted.

In this connection, the case of *Pope Mfg. Co. vs*

Gormully above cited is extremely pertinent. The Supreme Court, in that case, refused its aid in support of a contract which it held to be so "unusual and oppressive" as by its character to deprive the plaintiff of the right to equitable relief. Upon examining the contract referred, to which is given somewhat at length in the opinion at Circuit (34 Fed. Rep., 877), it will be found substantially identical in its character with the contracts the General Company is now seeking to force upon central station companies by means of this injunction.

Attention is also asked specially to the case of *Amer. Biscuit Co. vs. Klotz* (44 F. R., 721), cited above, which seems specially pertinent.

If a court of equity will not aid in the enforcement of such contracts when made, *a fortiori* it should refuse the aid of its process in the procurement of them.

SECOND POINT.

The injunction should not have been granted in this case, because it was sought and will operate in aid of an illegal combination in restraint of trade, tending towards unlawful monopoly and contrary to public policy.

I.

Of course a patent right is in its essence a monopoly and a lawful monopoly; but it is no more a monopoly than the ordinary rights of property.

The general law of property confers the same monopoly upon the coal miner in his land and its product, upon the manufacturer in his mill and his machinery, upon the merchant in his stock in trade and the goodwill of his business, that the patent from the Government confers upon the inventor in his invention.

If, under different patents, each severally owned and severally used by different persons, there is a competition in the business beneficial to the public.

Any contract or combination between the owners of those several patents, in restraint of that business or to monopolize it, is against public policy, to precisely the same extent, and for precisely the same reasons, as would be such a contract or combination between the owners of coal lands, of manufactories or of stocks in trade.

II.

The complainants in this suit are component parts of a combination between the several owners of different competing patents, under which a general competitive trade in apparatus for the manufacture of electric light and power, has heretofore been carried on throughout the country.

1. It appears that there were recently competing for custom in the furnishing of apparatus for the production of electric light and power, several separate companies, each manufacturing apparatus under its own separate patents. Among these were the Brush Electric Light Company, of Cleveland; the Sprague Electric

Railway Company, of New York; the Fort Wayne Electric Company, of Fort Wayne, Indiana; the Vandepoele Electric Company, of Chicago; the Short Electric Railway Company, the Schuyler Electric Light Company, the Excelsior Electric Company, the Thomson-Houston Electric Company, the Edison Electric Light Company and the Westinghouse Electric and Manufacturing Company (Answer, p. 193; Hebard Affidavit, pp. 212–214; Westinghouse Affidavit, p. 227; Pike affidavit, p. 283; General Electric Company Circular of June 20, 1892, p. 317; General Electric Company Circular of October 10, 1892, p. 354, ect.).

2. In 1889, the Edison Electric Light Company owned all the Edison Patents and granted licenses to local companies, stocks and bonds of which it held to the amount of $1,749,573 (pp. 242, 243).

In that year the Edison General Electric Company was organized under the general laws of New York for the purpose of combining the Edison Electric Light Company with certain other companies engaged in the manufacture and sale of electrical apparatus for electric light and power.

The method adopted was the acquisition of the stocks of all those companies, and the placing of such stocks in the hands of trustees for the benefit of the Edison General Electric Company, leaving the separate companies still in existence (p. 240).

Among the properties owned by the companies whose stocks were so acquired were extensive factories at Schenectady, New York; New York City; and Harrison, New Jersey (p. 244).

3. Prior to January 30, 1892, the Thomson-Houston Electric Company, a corporation organized under the

laws of Connecticut for the purpose of manufacturing, using, selling, &c., electrical apparatus for lighting and power, &c., had acquired the stocks of a number of the other companies engaged in similar business of manufacture and sale of electrical apparatus for lighting and power, at a cost in the neighborhood of $4,000,000, and while the Thomson-Houston Company was engaged in manufacture at Lynn, Massachusetts, these other companies, represented by these stocks, were working in combination with the Thomson-Houston Company and under its control (pp. 250–253).

4. In the Spring of 1892, these two combinations, the one under the name of Edison General Electric Company, and the other under the name of Thomson-Houston Electric Company, included substantially all the companies which had theretofore been competing in this kind of business, excepting the Westinghouse Company (p. 227).

5. Shortly before the 15th of April, 1892, a plan was formed for still further combining these two combinations in one grand combination which should include all persons manufacturing and selling electric light and power apparatus in the United States, except the Westinghouse Company.

The first instrument in giving effect to this plan was what purports to be a consolidation agreement, providing for the formation of a new company with a capital stock of $50,000,000, to take and hold the stocks of the two constituent combinations, the Edison General Electric and the Thomson-Houston, and issue its own stock in lieu thereof (record, pp. 235 to 238).

The second step was the obtaining of a special charter from the New York Legislature incorporating a

company under the name of the General Electric Company, with a capital of $100,000 (record, p. 362).

The third step was to immediately increase the capital of the company so chartered from $100,000 to $50,000,000 (record, p. 369).

The fourth step was to effect the exchange of stocks as appears by the General Electric Company report (pp. 247 to 257).

By this report, and by the other papers in the case as well, it appears that, while the Edison General Electric Company and the Thomson-Houston Electric Company preserve their separate corporate organization and formal existence, substantially the entire capital stock of each of them is owned by the General Electric Company (p. 249).

6. The result is that substantially all the manufacturers of electric light and power apparatus in the United States, except the Westinghouse Company, formerly competing in that business under different patents, are now parts of one great combination, and that, while there are many companies manufacturing and appearing to compete with each other, there is, in fact, no competition between them (Westinghouse affidavit, pp. 227–229; Pike affidavit, p. 283).

This is well illustrated by the bids for the lighting of the World's Fair, as shown by the affidavits of Mr. Westinghouse and of Mr. Pike, a director of the Exposition and a member of the committee having the matter in charge. They say bids were received from the Thomson-Houston Company, the Edison General Company, the Brush Electric Company and the Fort Wayne Electric Company. All these companies appeared to be competing, but there was, in fact, no competition between

them, for they were all members of this combination, and all their profits were bound to go into the same pool.

It appears from the answering affidavits printed on pages 220, 221 and 297 to 315, the reports and circulars printed at pages 239 to 257, 290 and 316, as well as the other papers in the case, that the trade of these various companies, both before and after the formation of the combination, was carried on in competition with the Westinghouse Company in various States of the Union, and was, and continues to be, an interstate trade consisting in the manufacture of the apparatus in some of the States and its sale throughout the several other States of the Union.

The trade of the Westinghouse Company which it is sought to suppress is, as is shown by the same papers, of the same character.

III.

The arrangement shown by the papers is not in its nature the acquisition of several competing properties by one person; and it is not necessary for the Court to pass upon the question whether the laws against the creation of monopolies limit the right of acquiring property. This arrangement is in its nature simply a combination or pooling arrangement.

Each of the companies originally competing in the business still exists, still owns its patents or rights under patents, its manufactory, its machinery, its stock

in trade. Each one continues its business, each apparently still competes with all the others. The public has to deal with these separate business concerns, just as it did before the formation of the General Electric Company.

The General Electric Company has acquired no title to any patent, or factory, or plant, or business. It conducts no business and performs no function except that of a pooling agent, and to some extent, perhaps, a selling agent, for all these separate business concerns.

The exchange of stock leaves each original corporation where it was except as it is confederated with others under one control and pooling of profits.

Farnum vs. Blackstone Canal Co., 1 Sumner, 46.

Nashua R. R. vs. Boston, &c., R. R., 136 U. S., 356.

IV.

That the object and effect of this combination is to prevent competition and create monopoly in this branch of trade cannot be doubted.

1. It is apparent upon the face of the proceedings which resulted in the combination. It is asserted in the circulars of the General Electric Company.

In the circular of June 20, 1892, agents are directed to take advantage of the situation which is the result of the combination to introduce the apparatus "adopted and used by the *allied interests* of the General Company" (pp. 316, 317).

In the circular of October 10, 1892, they assert that the control by the General Electric Company of electric railway patents granted to Edison, Thomson, Van Depoele and Sprague—patents owned and used by separate existing companies in the combination—gives the control of all the apparatus and devices employed in the modern electric railway (pp. 354–361).

2. The nature of the property with which this great electric light and power business deals, makes it peculiary subject to the suppression of competition and the creation of monopoly. Most of the principal subjects of trade are susceptible of almost unlimited production. No combination can limit the use of land for the production of sugar, or of grain, or for the creation of sugar refineries or distilleries or flour mills, or the application of capital to those purposes.

No combination, therefore, can effectually prevent competition or secure monopoly in the manufacture of, or trade in, such products, except for such a limited period as is requisite to bring new capital in the creation of a new competition.

Where, however, the only possible competition is between articles manufactured under a limited number of patents, a combination of all the owners of all those patents not only ends competition between them, but necessarily precludes competition by others, and creates absolute monopoly during the entire life of the patents.

That a dozen sugar refineries should combine is of but temporary consequence, even though they be all there are in the country; because any one else can build a sugar refinery, and some one certainly will, if prices are increased so as to make it profitable.

But, if there are only a dozen *patents* under which

sugar can be refined, and the owners of all those patents enter into a combination to put the price of sugar up to a given standard, that is a monopoly, indeed, absolute and exclusive, and permanently secure from competition, provided they can get the courts of the United States to protect that monopoly by injunction.

3. But for the competition of the Westinghouse Company the monopoly secured by a combination between the owners of different competing patents would now be complete and absolute. In one respect—that of electric motors—the combination claims that it is already complete. If the Westinghouse Company can be driven out of business, the monopoly will be complete in all respects; and, although there are many patents under which electrical apparatus can be produced, and many manufactories of that apparatus under these different patents, there will be but one arbiter of prices and one controller of production throughout the United States.

4. The monopoly thus produced will be not merely the monopoly naturally and legitimately incident to the exclusive right of making and selling incandescent lamps under Mr. Edison's Patent of January 27th, 1880, but a far wider and more permanent monopoly resulting from the combination.

The Edison Patent and this suit upon it are but incidents to the accomplishment of that result. The Edison Company is not seeking to make the purchase and use of its own dynamos the condition of furnishing incandescent lamps to consumers; it is not seeking to drive the Westinghouse Company out of the business of furnishing electric apparatus by

the substitution of its own apparatus; it is not using the coercive power of this patent to promote its *own* competition with the Westinghouse Company and destroy the competition of the Westinghouse Company with *itself;* but it proposes to use that power for the introduction of the apparatus of the Thomson-Houston Company and the Fort Wayne Company (Circular of June 20th, 1892, record, p. 317).

That is to say, the Edison incandescent-lamp patent is to be used to promote the business of another member of the combination; to wit, the Thomson-Houston Company.

The differences between the use of the patent for this purpose and for the direct benefit of the Edison Company are threefold.

(1) The Edison Patent is about to expire. The Edison Company has deliberately refrained from attempting to enforce it until only a short period of protection remains. The Thomson-Houston Company, however, has a contract with the Westinghouse Company under which the latter is bound not to sell any incandescent lamps (of any description whatever), for use with any of the generating apparatus of the Thomson-Houston Company's manufacture until the year 1902 (record, pp. 261, 265).

If therefore the Thomson-Houston generating apparatus can be made to drive the Westinghouse generating apparatus out of the field, the Thomson-Houston Company will have a monopoly of the supply of incandescent lamps for ten years to come, long after the expiration of the Edison Patent; and the benefit of that monopoly will inure to the Edison Company through the instrumentality of the combination.

(2) The Edison apparatus differs so radically from the alternating-current apparatus which has been supplied by the Westinghouse Company that it would be extremely difficult and expensive, and cause an enormous destruction of values to replace one with the other. A great part of the large field now covered by the alternating system probably could not be reached by the direct-current system of Edison (Hebard, p. 218).

For the short period which will elapse before the Edison Patent expires, mutual concessions might well be made between consumer and manufacturer; and the owner of alternating-current plants might well pay for a more expensive lamp rather than abandon his plant and introduce the direct-current apparatus, while the Westinghouse Company might well furnish such lamps without profit or even at a loss rather than see its business destroyed.

But the Thomson-Houston apparatus is also an alternating-current apparatus. It can be substituted for the Westinghouse apparatus with comparatively little difficulty and expense. This is so apparent to the people engaged in this business that the circular of June 20th, 1892, says that the substituted apparatus "will *of course* in every case be the Thomson-Houston, or Fort Wayne."

(3) Still another obstacle presents itself to the occupation of the field of electric lighting by the Edison Company. That is the fact, that a great part of the lighting by the alternating current system is through the means of 50-volt lamps (record, p. 214).

The Edison Company cannot make satisfactory lamps of that description, because they require hydrocarbon treatment, and that treatment it cannot use

without infringing patents owned by the Westinghouse Company (Hebard's Affidavit, pp. 214, 215; Brown, p. 299; Darlington, p. 301; Baker, pp. 304, 305).

It is true that, within the past few months, the Edison Company has, for the first time, claimed the right to use the hydro-carbon treatment, notwithstanding the patents owned by the Westinghouse Company. That is a claim which has yet to be established, and upon which the Edison Company must stand suit unless it can destroy the Westinghouse Company in some other way.

The Thomson-Houston Company, however, has from the Westinghouse Company, in the contract above mentioned, a license under which it can use the process of hydro-carbon treatment without question or contest (record, p. 258).

The Thomson-Houston Company is thus equipped with alternating-current apparatus, with a license to use the hydro-carbon treatment, that is essential to the production of available 50-volt lamps, and with a contract excluding the Westinghouse Company from making sales of lamps for use with its apparatus for ten years to come.

By forcing the Thomson-Houston apparatus into the place of Westinghouse apparatus through the exercise of the coercive power of an injunction in this suit, the combination, or as they called themselves the "allied interests," will drive the Westinghouse business out and keep it out of the field to an extent impossible for the Edison Company, acting by itself. The result would be a monopoly, not by the Edison Company under, and as the legitimate result of, its patent, but by the combination, as the result of

combination, accomplished by the various weapons afforded by the combined interests.

V.

The combination under consideration is against public policy and unlawful.

1. The policy of the law has been distinctly declared by statutes, both of the State of New York, which incorporated the complainants and the General Electric Company, and of the United States.

The act incorporating the General Electric Company, after giving it power to purchase the stock of other corporations, closes with these words:

> "This act shall not be construed as granting to the corporation hereby created the right to create or maintain any monopoly or unlawful combination in restraint of trade" (record, p. 368; N. Y. Laws of 1892, Chap. 323, Sec. 10).

The stock-corporation law of New York, which took effect May 18, 1892, contains the following provision:

> "SECTION 7. Combinations prohibited. No stock corporation shall combine with any other corporation or person for the creation of a monopoly or the unlawful restraint of trade, or for the prevention of competition in any necessary of life."
>
> *N. Y. Laws of 1892, Chap. 688, Sec. 7.*

This provision was an enlargement of the provision contained in the Stock Corporation Law of 1890 as follows:

"SECTION 7. Combinations prohibited. No stock corporations shall combine with any other corporation for the prevention of competition."

N. Y. Laws of 1890, Chap. 564, Sec. 7.

The Federal Act of July 2, 1890, commonly known as the Anti-Trust or Sherman Act, provides:

"An Act to protect trade and commerce against unlawful restraint and monopolies. Be it enacted, etc.

"SECTION 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal.

"Every person who shall make any such contract, or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by a fine not exceeding $5,000, or by imprisonment not exceeding one year, or by both, said punishments in the discretion of the Court.

"SECTION 2. Every person who shall monopolize or attempt to monopolize, or combine or conspire with any other person or persons to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished, etc. * * *

SECTION 8. That the word 'person or persons,' wherever used in this act shall be deemed to include corporations and associations existing under or authorized by the laws of either of the United States, the laws of any of the Territories, the laws of any State, or the laws of any foreign country."

26 Statutes at Large, Chap. 638.

1 Supp. to the R. S., 162.

2. Independently of any statutory provisions, such combinations are illegal and contrary to public policy, as declared by the established rules of the common law.

Hooker vs. Vandewater, 4 Denio, 349.
Stanton vs. Allen, 5 Denio, 434.
Arnot vs. Pittston Coal Co., 68 N. Y., 558.
Morris Run Coal Co. vs. Barclay Coal Co., 68 Penn., 173.
Clancy vs. Salt Co., 62 Barb., 395.
The People vs. North River Sugar Refinery Co., 54 Hun, 354.
The People vs. North River Sugar Refinery Co., 121 N. Y., 582.
Hilton vs. Eckersley, 6 Ell. & Bl., 47.
Craft vs. McConoughy, 79 Ill., 346.
Salt Co. vs. Guthrie, 35 Ohio St., 666.
Richardson vs. Buhl, 77 Mich., 632.
Gibbs vs. Baltimore Gas. Co., 130 U. S. 396.
U. S. vs. Jellico Coal Co., 46 Fed. Rep., 432.
American Biscuit Co. vs. Klotz, 44 Fed. Rep., 721.
Hoffman vs. Brooks, 11 Weekly Law Bulletin, 258.
State of Ohio vs. Standard Oil Co., 30 N. E. Rep., 279.

3. The form or method adopted to effect the combination is of no consequence.

Thus, in *Clancy vs. Salt Co. (supra)* a corporation was formed by a number of salt manufacturers ostensibly for the manufacture of salt, and they leased their manufactories to this new corporation; so that the corporation had, in form and appearance, the title to all the manufactories and the apparent right to conduct the manufacture in all, according to its own pleasures

as to production and as to price. Nevertheless, as it appeared that the original owners continued to operate their manufactories under contracts with the new corporations, which had the effect to make it for their interest to limit production, the Court held that the creation of the corporation, and the leases to it, must be treated as a mere device for evading the operation of the law.

In *Craft vs. McConoughy (supra)* four grain dealers in the Town of Rochelle had entered into an agreement which was claimed to create a partnership in the grain business; but, as each dealer kept and operated his separate establishment, the Court held that the contract must be treated as an executory agreement for the accomplishment of what was, in fact, its real effect; that is, the pooling of profits under cover of a partnership, and that it was void as against public policy.

In *People against the North River Sugar Refinery Co.*, the title to the stock of several sugar refining companies had been vested in the trustees of the so-called Sugar Trust, just as in this case the title to the stock of the competing electric light and power companies has been vested in the General Electric Company. The question was hotly contested throughout the Courts of New York, whether this devolution of title upon the so-called trustees was to be treated as a sale conferring upon them the rights of ownership, or whether the Courts were to look through the transaction to its object and effect and treat it as a combination of the companies whose stock was transferred. All the Courts held to the latter view. The Special

and General Terms of the Supreme Court held that the transaction, though in form a sale and transfer of stock, was, in fact, a combination, and that it was void upon two grounds : *first*, as *ultra vires* the corporations themselves, and, *second*, as tending to suppress competition and create a monopoly, and, therefore, contrary to public policy. The Court of Appeals held, equally with the Court below, that the transaction was to be treated as a combination, and that it was a punishable excess of power and violation of duty on the part of corporations entering into it.

The *State of Ohio against the Standard Oil Company (supra)* was a *quo warranto* against an Ohio corporation which had assumed the same relation towards a body of nine trustees, known as the Standard Oil Trust, as that now occupied by the complainants in this suit towards the General Electric Company.

No corporate act had been done which has not been, in substance, done in this case. The only difference was that in the Standard Oil case the combination had been effected by transferring the stock of various corporations to nine unincorporated individuals who held the stocks jointly, and issued their certificates to the beneficial owners ; whereas, in this case, the stocks are transferred to a corporation which holds them in trust and issues its certificates to the beneficial owners.

The Supreme Court of Ohio held that there was an illegal combination. The decision is stated in the syllabus prepared by the Court as follows:

> "An agreement by which all, or a majority, of the stockholders of a corporation transfer their stocks to certain trustees, in consideration of the agreement of the stockholders of other companies and of the members of limited partnerships en-

> gaged in the same business, to do likewise; and by which all are to receive, in lieu of their stocks and interests so transferred, trust certificates, to be issued by the trustees, equal at par to the par value of their stocks and interests; and by which the trustees are empowered, as apparent owners of the stock, to elect directors of the several companies, and thereby control their affairs in the interest of the trust so created; and are to receive all dividends made by the several companies and limited partnerships, from which, as a common fund, dividends are to be made by the trustees to the holders of the trust certificates—tends to the creation of a monopoly, to control production as well as prices, and is against public policy."

In *The American Biscuit Company vs. Klotz (supra)*, the Circuit Court of the United States for the Eastern District of Louisiana had before it the combination effected by means of the formation of a corporation which had actually acquired title to the property of a number of business concerns theretofore competing. The case arose upon an application for the appointment of a Receiver *pendente lite*. The Court held that the relief must be denied on the sole ground of the nature of the combination, although in all other respects the proper case for the appointment of a Receiver was made.

The Court said (p. 723):

> "So far we have considered the question of appointing a Receiver of the property in controversy *inter partes*, and mainly from the standpoint presented by the defendants' showing, and thereon such appointment seems proper, and we should accord it, but for an aspect of the case originally suggested by the defendant, when the case was pending in the State Court, apparently abandoned

here, but sufficiently brought to our notice by the exhibits of both parties. We are not satisfied that the complainant's business is legitimate. While the nominal purpose of the complainant's corporation, as stated in its charter, is the manufacture and sale of biscuit and confectionery, its real scope and purpose seems to be to combine and pool the large competing bakeries throughout the country into practically what is known and called a 'trust,' the effect of which is to partially, if not wholly, prevent competition, and enhance prices of necessary articles of food, and secure, if not a monopoly, a large control, of the supply and prices in leading articles of breadstuffs. * * *

"One just and decisive test of the meaning of the expression 'to monopolize' is obtained by getting at the evil which the lawmaker has endeavored to abolish and restrict. The statutes show that the evil was the hindrance and oppression in trade and commerce wrought by its absorption in the hands of the few, so that the prices would be in danger of being arbitrarily and exorbitantly fixed, because all competition would be swallowed up, so that the man of small means would find himself excluded from the restrained or monopolized trade or commerce as absolutely as if kept out by law or force. If this is the meaning of the defining words, does not this corporation thus glutted with the thirty-five industries of twelve States, disclose an 'attempt to monopolize'? So far, therefore, as the complainant's business is a combination in restraint of trade, or is an 'attempt to monopolize or combine in the form of a trust' or otherwise any part 'of trade or commerce' as these words are properly defined, the law stamps it as unlawful, and the courts should not encourage it. Aside from this, the complainant's business, even if lawful, being of the kind shown above, is not of

that meritorious kind that it should be encouraged by a court of equity. The appointment of a Receiver by a court of equity is not a matter of strict right, but of judicial discretion. Fosdick vs. Schall, 99 U. S., 235. It falls within that class of interlocutory remedies which courts must grant or withhold according to a discretion conscientiously exercised, upon a consideration of all the facts which a cause presents, involving the rights of the parties and the interests of the public. The attempt to accumulate in the hands of a single organization the business of supplying bread itself to so large a portion of the poor, as well as the rich, people of the United States, should not be favored by a court of equity. It carries with it too much of danger of excluding healthy competition, thereby increasing the difficulty to the general public of participating in a most usefui business, as well as adding to the possibility of multitudes of citizens being temporarily, at least, compelled to pay an arbitrary and high price for daily food.

"Whatever we may feel compelled to do, on the final hearing of this cause, towards recognizing the complainant's legal rights, and compelling a faithless trustee to acount, we are clear that at this preliminary stage, with our present impressions of the character and general scope of complainant's business, the Court ought not, by the appointment of a Receiver, to aid complainant to perfect and perhaps to enlarge, his combination or trust."

In *Richardson vs. Buhl (supra)* the Supreme Court of Michigan went so far as to hold that the formation of a corporation for the actual purchase of a large number of competing manufacturing establishments was an unlawful combination.

The decision is thus stated in the head note :

"A corporation organized for the purpose of controlling the manufacture and sale of matches

and by means of which scheme all competition is stifled and opposition crushed, and the whole business of that line engrossed by said corporation, is a menace to the public; its object and direct tendency being to prevent free and fair competition and control prices throughout the national domain. It is no answer to say that this monopoly has in fact reduced the price of friction matches. That policy may have been necessary to crush competition. The fact exists that it rests in the discretion of the corporation at any time to raise the price to an exorbitant degree. Such combinations have frequently been condemned by courts as unlawful and against public policy."

These cases constitute a great weight of authority in support of the proposition that no arrangement of any kind or description between different owners of different properties, under which they keep their separate titles, continue their several business, and yet destroy competition between themselves and create a single monopoly for their common benefit, can be sustained; and for a further subordinate proposition that the combining of corporations by means of a pooling of their stocks constitutes no exception to the general rule.

VI.

The fact that the pooling of stocks of the combined companies was accomplished through the instrumentality of a corporation, so far from legalizing the transaction and putting it upon a better footing than ordinary trusts, adds another element of illegality to the transaction.

1. With whatever force it might under ordinary circumstances be contended that the transfer of the stock of combining companies to a corporation, and taking in exchange therefor certificates of the stock of that corporation, was more legitimate and permissible than the transfer of such stocks to a body of natural persons as trustees, and the taking of their trust certificates in exchange therefor, no room is left for that contention here.

It is expressly excluded by the provision of the General Electric charter (record, p. 368):

> "This act shall not be construed as granting to the corporation hereby created the right to create or maintain any monopoly or unlawful combination in restraint of trade."

This provision is an express limitation upon the power of the General Electric Company to acquire the stocks of other companies, and it makes the acquisition of the stock of the combined companies by the General Electric Company *ultra vires* and unlawful.

The combination effected by means of such a transfer receives no aid or legality from it.

If the result accomplished by other means would have been unlawful, it becomes, when accomplished by these means, an unlawful result accomplished by unlawful means.

2. The prohibitory clause of the General Electric charter above quoted must be read in the light of circumstances existing on the 15th of April, 1892, when the act was passed.

At that time the Sugar Trust under which corporate stocks were pooled in the hands of a Board of Trustees had been declared by the Courts of New York to be an

unlawful combination between corporations for the prevention of competition.

The Legislature had by the General Stock Corporation Law of 1890, with this Sugar Trust decision before it, provided: "No stock corporation shall combine with any other corporation for the prevention of competition."

The Federal Congress had by the Sherman Act declared that every combination in the form of trust or otherwise in restraint of trade among the several States was illegal, and had made every combination to monopolize any part of the trade among the several States a misdemeanor, and had by a separate section expressly included corporations among the persons affected by the act.

The Standard Oil Trust had just been declared by the Court of last resort in Ohio to be an unlawful combination.

Under these circumstances the Legislature, being about to confer upon the General Electric Company the power to acquire and hold the stock of other corporations just as private individuals could acquire it, proceeds to limit its grants by prohibiting the exercise of the power granted as private individuals had exercised it in the Sugar Trust and the Standard Oil Trust cases.

No language could make plainer the intent of the Legislature to prohibit the General Electric Company from doing what those trusts had sought to do.

VII.

The course pursued by the applicants for the General Electric Company charter shows clearly their apprehension that, if they disclosed their real purpose to the Legislature, that body, instead of relying upon a prohibition in general terms, would specifically prohibit their contemplated action or would refuse their charter altogether.

1. The formal plan and agreement entered into by the persons controlling the several combined companies prior to the granting of the charter was to form a corporation with a capital of $50,000,000, divided into 500,000 shares of one hundred dollars each (record, page 235).

2. They obtained from the Legislature a charter which provided, "Section 3. The capital stock with which said company shall commence business shall be $100,000, divided into one thousand shares each of one hundred dollars" (record, p. 364).

This act was passed April 15th, 1892.

3. The very next day after the granting of the charter, viz., on the 16th day of April, 1892, they called a meeting of the stockholders for the 30th of April, and at that meeting increased the capital stock of the company to $50,000,000—just five hundred times the amount fixed in the charter for the commencement of their business, and the precise amount which

they had agreed upon prior to the granting of the charter. The division into common and preferred stock, and the arrangement as to preferential dividends, was precisely in accordance with the previous agreement.

4. It is true that the charter contained a clause authorizing the stockholders from time to time to increase their capital, but that is the ordinary provision against future contingencies. The original amount of capital fixed in the charter is supposed to be the amount which the applicants consider sufficient for existing conditions.

It is expressly so declared by the charter, which provides that one hundred thousand dollars shall be the capital upon which the company shall commence business. Of course, they in fact commenced business, not with one hundred thousand dollars, but with fifty million dollars. Of course they intended at the time the Legislature considered and passed the bill to commence business with a capital of fifty million of dollars.

It is impossible to resist the conviction that the applicants for this charter deliberately concealed from the Legislature the entire scope and purpose of their scheme, because they knew that the revelation of their real purpose, which would have followed the true statement of the amount of capital with which they intended to commence buriness, would have been followed by instant legislative condemnation.

VIII.

Enough has already been said to show that this injunction was sought, and is intended to be used, in aid of the combination above described.

It is apparent:

1. That the Edison Companies are suing here not solely in their own right but for the use and benefit of all the other members of the combination.

2. That the primary benefit sought from the injunction is not to the Edison Company, but to the Thomson-Houston Company; the Edison Company looking for its benefit to the results of its combination with the Thomson-Houston Company.

3. That the coercive power of the injunction placed in the hands of other companies with which the Edison has combined would produce a combined monoply of the manufacture of electrical apparatus other than incandescent lamps, more extensive, longer continued and more injurious in its effects, than would have been possible were it confined to the promotion solely of the Edison Company's business.

4. That the Edison Company has already placed the control and use of the injunction in the hands of the combination to accomplish that effect.

THIRD POINT.

In view of laches of the complainants and their predecessor, and the enormous amounts of capital invested by the public in consequence of such laches, the grant of the injunction was not "in accordance with the course and principles of courts of equity" (Sec. 4921, R. S.).

The substantial facts under this head are as follows:

The Sawyer-Man Company, the petitioner, was organized in 1886, and succeeded to the lamp manufacturing business which had been established by the Consolidated Electric Light Company some years before (Garden, p. 205).

The Consolidated Electric Light Company, the predecessor of the petitioner in the lamp-manufacturing business, was organized in September, 1882, and during the years 1882, 1883 and 1884 invested in its business about $350,000, of which three-fourths was expended in the incandescent-lighting branch of its business (Garden, p. 200). In the early spring of 1885 additional capital to the amount of $200,000 was put into the business (Garden, p. 204; Davis, p. 209).

For about *two years prior to the organization of the Consolidated Company, the United States Electric Lighting Company was an active competitor of the Edison Company* in the manufacture and sale of incandescent lamps substantially identical with those since held by the Court to be an infringement of the patent in suit; it was obtaining important contracts for incandescent

lighting in competition with the Edison Company, and, as early as 1881, its sales of incandescent lamps were at least as large as those of the Edison Company (Hebard, pp. 213, 220; Garden, p. 204; Davis, p. 209).

The operations of the United States Company were perfectly well known to the Edison Company from the outset (Hebard, p. 220).

No suit was brought on the Edison Lamp patent now in suit until May, 1885 (Garden, p. 202; Hebard, p. 221).

The fact that at the time when the Consolidated Company was organized the United States Company had been manufacturing and selling incandescent lamps largely in competition with the Edison Company for a considerable time, and that no suit for infringement had been brought against that company by the Edison Company, had great weight with the persons who furnished the capital for the Consolidated Company in leading them to believe that such incandescent lamps did not infringe any of the Edison Patents, including the patent in suit, or that the Edison Company did not consider such patents valid (Garden, p. 204; Davis, p. 209).

Immediately after the organization of the Consolidated Company in 1882, it proceeded to install incandescent lighting plants in competition with the Edison Company, and, prior to the time when the first suit on the Edison lamp patent was brought in 1885, it had installed a number of such plants in prominent buildings in New York City and elsewhere (Garden, p. 201).

The stockholders and officers of the Consolidated

Company acted in good faith and upon advice of counsel that they could safely proceed with the business (Garden, p. 204; Davis, p. 209).

No notice of any claim of infringement of the patent in suit was given by the Edison Company either to the Consolidated Company or to the United States Company prior to the bringing of the first suit in May, 1885 (Garden, p. 203; Hebard, p. 221).

If a suit had been brought promptly against the United States Company when it first went into the business in 1880, and had been prosecuted with reasonable diligence, a decision could have been reached before the date at which the Consolidated Company was organized, and long before the organization of the defendant (Hebard, p. 220).

If such suit had been brought and prosecuted promptly in 1880, the business done by the United States Company in incandescent lighting would have been extremely small; *neither the Consolidated Company nor the present petitioner nor any of the other electric manufacturing companies would have gone into the business at all*, and there would consequently have been substantially no incandescent lighting plants in existence in this country making use of generating apparatus, other than that made by complainants (Hebard, p. 220).

Although the operations of both the United States Company and the Consolidated Company in the manufacture and sale of incandescent lamps and other apparatus for incandescent lighting were perfectly well known to the Edison Company from the outset (Hebard, p. 220; Garden, p. 201), *no excuse whatever is given in the moving papers for not bringing the suit earlier.*

The interpretation formerly put by the Circuit Court upon Section 4887 of the Revised Statutes relating to the limitation of the term of a United States Patent by the expiration of a prior foreign patent, which is referred to in Mr. Herrick's affidavit forming a part of the moving papers, constitutes no explanation of the long delay in *bringing the suit.*

It appears that the first term of the Canadian Patent, which was held to limit the term of the patent in suit, did not expire until November, 1884 (Herrick, p. 67).

If suit had been brought promptly in 1880 when the United States Company first entered the business, a decision on the merits could have been obtained at final hearing as early certainly as the latter part of 1882, when the patent would still have had two years to run, even under the interpretation then put by the Courts on Section 4887.

Nor does this interpretation of the law furnish any adequate excuse for the great delay of the Edison Company in prosecuting the suit after it was brought. The plea setting up this defense was not brought on for argument until about two years after the suit was brought (Herrick, p. 68). If the plea had been set down for argument when it was filed in 1885, an immediate appeal might have been taken to the Supreme Court, and the question would have been decided in regular course much earlier than it was in the *Bate Case;* and it is to be presumed, moreover, that the case would have been advanced as the *Bate Case* was afterward, in which event a decison could have been had in 1885, or early in 1886, instead of 1889.

Under these circumstances of great and unexplained delay, both in bringing and in prosecuting the first suit on the patent, the United States Company and the Consolidated Company entered the business and invested large amounts of money in the manufacture of incandescent lamps and apparatus to be used with them. The Westinghouse Company, which has succeeded to, and is continuing, the business of both these companies, has also invested large sums of money in the business, and has installed a very large number of incandescent-lighting plants. The plants of the United States Company (of which over 300 were put in prior to the bringing of any suit on the patent) have an aggregate capacity of about 350,000 lamps, and those put in by the Westinghouse Company have an aggregate capacity of over 950,000 lamps, making a total of over 1,300,000 lamps (Hebard, p. 213).

These plants have cost the purchasers about twenty-five million dollars ($25,000,000), a large percentage of which has been paid for dynamo machines, regulators, meters, lamps and other electrical apparatus furnished by the electric manufacturing companies (Hebard, p. 212).

Although the lamps form but a small part of these plants as regards cost (only two or three *per cent.)*, they are absolutely essential for the continued operation of the plants, and they have only a limited lifetime. In order that the operation of the plant may be kept up, it is necessary that, as fast as lamps are worn out, they shall be replaced with new ones, and, *unless lamps can be procured whenever needed, the entire plant will be rendered useless, and the greater part of the in-*

vestment represented by it will be a total loss (Hebard, p. 214).

In addition to the capital invested in the local lighting plants, there has been a very large amount of capital, amounting to several millions of dollars, invested by the Westinghouse Company, the United States Company and other manufacturers of electrical apparatus outside of the combined interests of the General Electric Company, in the manufacture of dynamo machines, converters, meters, regulators and other electrical apparatus for incandescent lighting, which could not be sold at all unless incandescent lamps could be procured for use with such apparatus; and these factories employ several thousand hands.

If an assured supply of proper lamps for future plants were cut off, this capital would be substantially a total loss, and the men employed would be thrown out of work (Hebard, p. 218).

The investment of practically all of this capital, both in local lighting plants and in the manufacture of dynamo machines and other apparatus for which there would be no market if incandescent lamps could not be procured to go with it, *has resulted directly from the great delay of the Edison Company in asserting any rights upon the patent now in suit*, since, if suit had been brought promptly in 1880, when the United States Company first went into the business, the operations of that company would have been very small, and the other companies which have since entered the field would not have gone into the business of incandescent lighting at all (Hebard, p. 218).

Furthermore, the papers show that this capital which the complainants have, by their laches, in-

duced to enter the business has been employed largely in the pioneer work of creating and developing a a business which was unremunerative in the early stages and has become profitable only by reason of the development, at vast expense, of many other things besides incandescent lamps. Mr. Edison emphasizes this in his affidavit (p. 49).

In this pioneer work the Westinghouse Company and its associates have taken a large part. The Westinghouse Company has introduced and developed the "alternating-current" system of distribution which has entered so much more widely into use than any other system that it is now operating more incandescent lamps than all other systems, and has thus developed the incandescent lighting business enormously (Hebard, p. 214).

The Westinghouse Company has established 430 central stations and over 1,000 isolated plants using the alternating-current system (p. 164).

The United States Company took so large a part in this pioneer work that in 1881 it actually sold more incandescent lamps than the Edison Company (Hebard, p. 221), and the business of the United States Company has partaken so largely of the character of the pioneer work that its entire business in the manufacture of incandescent lamps shows a heavy loss (Griffin, p. 96; Hebard, p. 224). It is only recently that the business of incandescent lighting has become profitable (Hebard, p. 223).

All this pioneer work on the part of the Westinghouse Company and other companies, not only in the development of the incandescent lamp, but in the development of systems of distribution, dynamos and other apparatus, and the creation of a large demand for such

apparatus, will now inure to the benefit of the complainants if they are enabled to monopolize the entire business through the monopoly of incandescent lamps, and the net result will be that *the complainants will secure an enormous advantage from their own laches*, since, if they had proceeded promptly, they would not have had the assistance of any of this capital in such pioneer work.

These considerations—the long-continued delay of the complainants and their predecessor in asserting any rights under the patent, notwithstanding their knowledge of the existence and rapid growth of the business established by their competitors in incandescent lighting, the great magnitude of the adverse interests called into existence by such laches, and the irreparable injury which would be caused to such interests and to the public by an injunction—made the granting of the injunction in this case clearly contrary to "the course and principles of courts of equity," as established by numerous authorities.

They were, however, in substance disregarded or overruled by the Circuit Court of Appeals in its decision. It is true that the decision makes some provision, though an entirely inadequate one, for protecting a part of the purchasers of Westinghouse plants already installed from being arbitrarily cut off by complainants from a supply of lamps for continuing the operation of their plants ; it, however, not only makes no provision whatever for protecting the purchasers of Westinghouse plants hereafter installed, or which have been installed since the first decision of the Circuit Court in July, 1891, but it expressly holds that neither the

Westinghouse Company nor the purchasers of such plants have any rights in the premises which the complainants are bound to respect, and thus sanctions the avowed intention of the General Electric Company and the complainants to use this patent for destroying the capital invested by the petitioner and the Westinghouse Company, and suppressing competition in the entire apparatus entering into an electric lighting system.

At the most, if any injunction at all were granted where interests of such magnitude had been called into existence by complainants' laches, adequate protection should have been given to such interests by exacting as a condition of the granting of the injunction an agreement on the part of the complainants to supply lamps on reasonable terms to the petitioner and the Westinghouse Company and all their customers.

As regards the new lamp referred to in the petition as being introduced by the Westinghouse Company, and which is claimed by that company not to be within the scope of the Edison Patent, the following suggestions are in point:

The complainants and the General Electric Company assert that it *is* an infringement and is covered by the injunction. Whatever may be the ultimate judgment of the courts on this point, the contention of the complainants would naturally deter, and in fact does deter, the public from dealing with the Westinghouse Company as to such lamp.

Moreover, this assertion of right by the complainants against this new lamp estops them from using the fact of its existence as an argument against the allowance of the writ now asked for.

It is respectfully submitted that the interests at stake are of such magnitude, and that the questions involved are of such importance to the public, as to make this case a proper one for review by this Court, and that the writ of *certiorari* should be granted as prayed for in the petition.

EDMUND WETMORE,
ELIHU ROOT,
SAMUEL A. DUNCAN,
LEONARD E. CURTIS,
Counsel for Petitioner.

Office Supreme Court U. S.
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JAMES H. McKENNEY,
CLERK.

C. G. Burgoyne's Printing Business, 146 15[illegible] Centre St. N.Y.

IN THE SUPREME COURT OF THE UNITED STATES.

IN THE MATTER

OF

The Petition of SAWYER-MAN ELECTRIC COMPANY, for a Writ of *Certiorari*.

Points for the Edison Electric Light Company and the Edison General Electric Company in opposition to the petition.

I. This Court has no power, under the Act of March 3d, 1891, to review by *certiorari* the decision of the Circuit Court of Appeals, made by virtue of the 7th Section of that act, affirming upon appeal an interlocutory order or decree of the Circuit Court granting or continuing an injunction.

(a) The Seventh Section of the act contains the only provision for the review of interlocutory injunction orders and decrees. That provision is special, involves an entire departure from the methods of review allowed since the formation of the federal courts, and is by its terms expressly limited to a review by the Circuit Court of Appeals. Nor is there anything in the history of that provison, or in the occasion of its enactment, to have

warranted or called for a further appeal to this Court from such an interlocutory order or decree. The grievance under which suitors labored, and which it was the object of Section 7 to relieve, was that in the long delay that might be involved before decree upon final hearing in the original court or in the Court of Appeals, whose decree should be final, the party enjoined, if the injunction was not warranted, might suffer irreparable injury. In patent cases the decision of the Circuit Court of Appeals is made final, and the object of the provision was to obtain its decision upon the question of the right to the interlocutory injunction in advance of the hearing upon the merits. It cannot appear until after the final decision of the Circuit Court of Appeals upon the merits, whether this Court will, in the exercise of the discretion granted to it by the second paragraph of the 6th section, deem it proper to review the action of that Court.

(b) The sixth section of the act to which above resort can be had for the power now claimed by the petition gives to this Court only the power and jurisdiction to call up for review upon its own motion the final decrees of the Circuit Court of Appeals, which the party has no right by writ of error or appeal to have reviewed here.

Stripped of extraneous matter, the language of the sixth section, as applicable to this question, is as follows:

"*The judgments or decrees of the Circuit Court of Appeals shall be final in all cases arising under the patent laws, excepting that in any such case it shall be competent for the Supreme Court to require, by certiorari or otherwise, any such case to be certified to the Supreme Court for its review and determination, with the same power and authority in the case as if it had been carried by appeal or writ of error to the Supreme Court.*"

The judgments and decrees which are the subject matter of this provision are expressly and necessarily the final decrees of the Circuit Court of Appeals, and can by no possibility include any interlocutory order or decree of that Court. If the language could be made to include any interlocutory order or decree of that Court, it could not be limited to injunction orders or decrees, but must for the same reason include all interlocutory orders and decrees.

Such being the subject matter of the main provision, without the exception, the exception cannot enlarge it, but only except something out of it —a part out of the whole. Out of the judgments and decrees, which but for the exception would be final as rendered by the Circuit Court of Appeals, the exception provides a further review here by leaving it to the discretion of this Court to require it.

Again the language of the exception is plain and unmistakable to the same intent, for, when any such case is certified to this Court "its review and determination" is to be "with the same power and authority" (and no other) "as if it had been carried by appeal or writ of error to the Supreme Court"; that is, as if the party had by right brought it up for review by appeal or writ of error, which could only be by appeal or writ of error from a final judgment or decree.

The "power and authority" given to this Court by this section is thus expressly limited to the "review and determination" of final judgments and decrees of the Circuit Court of Appeals.

(c) The other provision of section 6, giving this Court discretionary power and authority to require patent and other cases which from their subject matter would otherwise be finally decided in the Circuit Court of Appeals, to be sent up to it for its consideration, is in entire harmony with this

necessary limitation to a review of final decrees and judgments only, for in that case this Court entirely supplants the Circuit Court of Appeals, and steps into its place as the appellate court, requires the whole record and cause to be sent up to it "and thereupon shall decide the whole matter in controversy in the some manner as if it had been brought there for review by writ of error or appeal," which could only be from a final judgment or decree.

(*d*) Furthermore, it is only "*the case*" that is ever to come to this Court for review under any clause of Section 6; not part of a case or a single order in the course of the cause.

Where the Circuit Court of Appeals certifies questions on which it desires instructions this Court may, instead of answering the questions, require that the "*whole record and cause*" may be sent up to it for its consideration, and thereupon shall decide "*the whole matter in controversy*"—not a fragment of it.

When this Court orders it up it is again "*such case*" that is to be certified to it and reviewed and determined by it.

And when the party has of right an appeal or writ of error, it is in the same way for "a review of the *case*" by this Court.

(*e*) All the cases in which the Court has heretofore construed this and other sections of the Act uphold us in the contention that it is only of final decrees and judgments of the Circuit of Appeals or of the Circuit Court that this Court has the right of review.

Lau Ow Bew, Petitioner, 141 U. S. 583.

This was a writ of *certiorari* to the Circuit Court of Appeals, after its final judgment to certify to this Court *the case* on which it had so rendered judgment.

McLish vs. Roff, 141 U. S. 660.,

There Section 5 was under consideration, and its language was much more susceptible than that of Section 6 to the contention that an appeal or writ of error to this Court from something other than a final judgment of the Circuit Court was intended, but the Court held that such was not and and could not be the meaning of the act, and every consideration there applied to the 5th Section is here still more strongly applicable to the 6th Section.

Railway Co. vs. Roberts, 141 U. S., 690, is in the same spirit.

Railway Co. vs. Osborne, 146 U. S., 354, seems directly in point, and decided this very question of a *certiorari* issuing to review an interlocutory decree upon the authority of McLish vs. Roff, which arose only under the 5th Section; of Rice vs. Sanger, 144 U. S., 197, which was the case of an attempt to review by writ of error to a State Court a judgment not final; and of Meagher vs. Manufacturing Co., 145 U. S., 608., which was a similar case.

(f) Before the Act of March 3, 1891, the practice of the Supreme Court was to use the writ of *certiorari* only as an ancillary process in aid of its appellate jurisdiction.

Fowler vs. Lindsey, 3 Dell., 411.
Ex parte Vallandigham, 1 Wall., 243.

The common-law writ of *certiorari*, when used not as an ancillary process, but as a writ of review, as contemplated by Section 6 of the act, is only granted to bring up for review *final* determinations and adjudications, and not for the review of interlocutory orders or decrees.

People vs. County Judge, 40 Cal., 479.
Palms vs. Cambau, 11 Mich., 109.
Stakes vs. Early, 45 N. J. L., 478.
Richardson vs. Smith, 59 N. H., 517.

Ex parte Hamilton, 58 How. Pr. (N. Y.), 290.
Noble vs. Board of Pilots, 37 Barb. (N. Y.), 126.
In re Road, etc., 2 S. & R. (Pa.), 419.

II. But the case sought to be brought up now by *certiorari* to this Court is not now and never has been in the Circuit Court of Appeals. It is still pending where it always has been pending—in the Circuit Court—and the petition so alleges. It cannot be pretended that the 6th Section authorizes a *certiorari* from this Court to the Circuit Court. The "case" has never been out of the Circuit Court, where it was commenced. The appeal to the Circuit Court of Appeals did not remove the "case." It still remained there to every intent and purpose, and no proceeding in it there was stayed or interferred with by that appeal, the operation of the injunction itself being stayed by the Circuit Court which granted it.

Therefore, the power and authority of this Court to issue the writ of *certiorari* extending only to the Circuit Court of Appeals, it cannot overleap that court and go direct to the Circuit Court, but must wait until the final judgment of the Court, over which its right to review is extended.

If this Court should issue the writ of *certiorari* to the Circuit Court of Appeals, and should, on an examination of the record, instruct that Court that it erred in the exercise of its discretionary powers in affirming the injunction order, what could the Circuit Court of Appeals legally do to give effect to that instruction, now that the case is not in that Court? The statute gives it no power or process by which it can reach out and bring the case before it for that purpose. Obviously, if issued at all, the writ must be directed to the Court in which the case is pending at the time the writ is issued.

People vs. Delaney, 49 N. Y., 655.

Farmington, &c., Co. vs. Commissioners, 112 Mass., 206.
Commissioners vs. Winthrop, 10 Mass., 177.
Williams vs. Williams, 71 N. Car., 427.

III. The petition is not strengthened by the allegation contained in its 13th section that since the interlocutory proceedings in this case the U. S. Circuit Court for the Eastern District of Missouri has refused to grant a preliminary injunction upon newly discovered evidence. The record in this case does not present such newly discovered evidence, which, therefore, would not be before this Court for review, even if the writ asked for was granted. The petitioner cannot take advantage of this evidence, therefore, by the writ.

IV. It is asserted by the petitioner that the Court of Appeals was in error in affirming the interlocutory decree granting the preliminary injunction, because of certain matters presented to that Court by the defendant, and which that Court did not regard as of sufficient weight to deprive the complainants of the injunction to which they were entitled. These are made the basis of the petition, and are as follows:

(1) Alleged laches of the complainants in bringing and prosecuting suits upon the patent in question;

(2) A large investment by the public in electric lighting apparatus, due to complainant's laches, which will be destroyed if the public cannot obtain incandescent lamps to use with the apparatus; and

(3) That the complainants have entered into an illegal combination in restraint of trade, and propose to use the injunction unconscionably to further the unlawful purposes of that combination.

None of these matters relate in any way to the merits of the controversy.

They were advanced wholly by way of appeal to the discretionary powers of the Court in the matter of granting preliminary injunctions. The complainant's right was clear and was not contested. By its decision the Court, exercising its discretion in accordance with the principles of equity jurisprudence, determined that there was not enough in the propositions advanced or in the facts presented in support of them by the defendant to deprive the complainants of the injunction. It seems clear that this Court will not issue a writ of *certiorari* to review an action of the Court of Appeals that was merely discretionary, particularly now that that Court has lost control of the cause, which is, as already stated, at the present time only in the Circuit Court.

Is a matter of discretion " of sufficient importance in itself and sufficiently open to controversy " (Lau Ow Bew, Petitioner, 141 U. S., 587) to warrant the issuing of the writ?

At common law the writ of *certiorari* does not lie where the matter sought to be reviewed rests in the discretion of the tribunal below.

Benton vs. Taylor, 46 Ala., 388.
Brooks vs. Kirby, 19 Ala., 72.
Hildreth vs. Crawford, 65 Iowa, 339.
Supervisors vs. Auditor General, 27 Mich., 165.
Dwight vs. Springfield, 4 Gray (Mass.), 107.
People vs. Supervisors, 15 Wend. (N. Y.), 198.
Livingston vs. Rector, 45 N. J. L., 230.
Commissioners vs. Kane, 2 Jones (N. Car.), 288.
Wildy vs. Washburn, 16 Johns. (N. Y.), 49.

As a matter of fact the allegations of the defendant as to laches, hardship, &c., were fully met in the complainant's record. This appears sufficiently from the decision of the Court of Appeals.

JOSEPH H. CHOATE,
FREDERICK H. FISH,
RICHARD N. DYER,
Of Counsel.

New York City, April 29, 1893.

FILED
MAY 8 1893
JAMES H. McKENNEY,
CLERK

IN THE

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1892.—MAY, 1893.

In the Matter of the Petition

of

THE SAWYER-MAN ELECTRIC COMPANY, for a Writ of Certiorari to bring up the case of EDISON ELECTRIC LIGHT COMPANY et al., vs. SAWYER-MAN ELECTRIC COMPANY, for review and determination.

ADDITIONAL BRIEF

For the Petitioner in support of the Application for the Writ.

B. H. BRISTOW,
Of Counsel for Petitioner.

C. G. Burgoyne, Walker and Centre Streets, N. Y.

IN THE

Supreme Court of the United States,

IN THE MATTER OF THE PETITION OF THE SAWYER-MAN ELECTRIC COMPANY, for a Writ of *Certiorari* to bring up the case of Edison Electric Light Company *et al.* vs. Sawyer-Man Electric Company for review and determination.	October Term, 1892 (May, 1893).

ADDITIONAL BRIEF

for the petitioner in support of the application for the writ.

The suit above-named was instituted in the Circuit Court of the United States for the Southern District of New York upon October 29, 1892. Its object was to enjoin an alleged infringement of Letters Patent No. 223,898, granted, upon January 27, 1880, to Thomas A. Edison for an Improvement in Incandescent Electric Lamps. A preliminary injunction was granted by order of the Circuit Court upon November 19, 1890, and this order was affirmed by the Circuit Court of Appeals for the Second Circuit, upon December 19, 1892. The present petition is for a writ of *certiorari* requiring the case to be certified to this court for its review and determination.

The statute provides that in certain cases, including cases arising under the patent laws, "it shall be competent for the Supreme Court

" to require by *certiorari* or otherwise, any case to be certified to the " Supreme Court for its review and determination with the same " power and authority in the case, as if it had been carried by appeal " or writ of error to the Supreme Court" (Act of March 3, 1891, Ch. 517; 26 Statutes, 826). In American Construction Co. vs. Jacksonville, etc., Railway Co., decided at the present term, it was held that this power may be exercised at any stage of the case—not merely after final judgment. Following the earlier decisions, however, the court said that this power should be exercised only in cases of " peculiar gravity and general importance or in order to secure uniformity of decision" (to the same effect are Lau Ow Bew, Petitioner, 141, U. S., 583; *In re* Woods, 143 U. S., 202). It is submitted that the present case comes within that description.

(1) Complainant, without objecting, during a period of five years, permitted vast sums to be invested in disregard of the rights which it now sets up. Can it have the aid of a court of equity in using those rights to destroy these investments, after it has been guilty of such laches?

(2) Complainant is merely part of a combination the very existence of which ~~existence~~ is unlawful. Can that combination have the aid of a court of equity in carrying out the illegal purpose for which it was organized?

To those who are directly interested the question is whether the investment, aggregating $25,000,000, which they have been lulled into making shall now be destroyed. To them, in common with the public at large, the question is whether the great business of incandescent electric lighting shall be absorbed by an unlawful combination, and that, too, by the aid of a court of equity.

These surely are questions of peculiar gravity and general importance.

FIRST.

Complainant has been guilty of gross laches in asserting the rights now alleged. Under settled principles, therefore, it cannot have relief in equity, especially as against those who have relied upon its failure to act.

The facts will be found stated in detail in the Principal Brief for petitioner at pages 54–61. The patent now involved was granted upon January 27, 1880. No action whatever was taken to prevent its infringement until May, 1885. During all this period of time the complainant's competitors, including the predecessor of the defendant, were manufacturing incandescent lamps. This was well known to complainant, but it made no objection. Influenced by that fact, those interested from time to time put in fresh capital, which was, in great part, expended in building up the business of incandescent electric lighting, until now vast sums are employed therein. After the business had, in this manner, been made valuable, complainant first sought to enjoin others from carrying it on. Without offering any excuse for its delay, it now seeks to appropriate to itself the fruit of the expenditures which it has induced others to make by its own inaction.

Is complainant, under such circumstances, entitled to the aid of a court of equity in enforcing its rights under the patent, if any? Upon fundamental principles of equity jurisprudence, manifestly, it is not, because of its gross laches. Nowhere, too, have those principles been enforced more vigorously than in this court. "The cases are many in which this defense has been invoked "and considered. It is true that, by reason of their differ- "ences of fact, no one case becomes an exact precedent for "another, yet a uniform principle pervades them all. They "proceed on the assumption that the party to whom laches is "imputed has knowledge of his rights, and an ample opportunity to "establish them in the proper forum; that, by reason of his delay, "the adverse party has good reason to believe that the alleged "rights are worthless, or have been abandoned, and that, because of "the change in condition or relations during this period of delay, "it would be an injustice to the latter to permit him to now assert "them." * * The cases "all proceed upon the theory that

" laches is not, like limitation, a mere matter of time ; but principally " a question of the inequity of permitting the claim to be enforced— " an inequity founded upon some change in the condition or rela- " tions of the property or the parties " (Galliher vs. Cadwell, 145 U. S., 372). In many recent cases in this court it has been held that under circumstances such as those now involved the complainant cannot have the aid of a court of equity to enforce unquestionable rights of property. Among those cases may be named Harwood vs. Railway Co., 17 Wall, 78; Twin Lick Co. vs. Marbury, 91 U. S., 587 ; Brown vs. County, 95 U. S., 157 ; Hayward vs. Bank, 69 U. S., 611 ; Holgate vs. Eaton, 116 U. S., 33 ; Davison vs. Davis, 125 U. S., 90 ; Hammond vs. Hopkins, 143 U. S., 224 ; Hoyt vs. Latham, 143 U. S., 553 ; Foster vs. Co., 146 U. S., 88.

The facts of the present case in this regard have been already stated. They bring it precisely within this authoritative definition of cases in which, by reason of complainant's laches, equity will grant no relief. Nor will it do to suggest, by way of answer, that the present is a patent case or that the granting of a preliminary injunction rests in the discretion of the court.

The fact that complainant's rights arise under a patent cannot make its position any stronger than if they arose under a contract or by mere operation of law. In either case they would be rights of property—no more and no less. The question now is not regarding the origin of complainant's rights. Their origin and original extent is not now important. The question is whether complainant's situation is such as to entitle it, under the settled principles of equity jurisprudence, to enforce them in equity. If not, whatever may have been the origin of complainant's rights, it must equally be the case that a court of equity will not interfere.

Indeed, by the express language of the statute injunctions in patent cases may be granted only " *according to the course and principles of courts of equity* " (R. S., Sec. 4921). Accordingly, suits for infringement of patents are within the general rule denying relief to complainant where he has been guilty of laches (North vs. Kershaw, 4 Blatchf., 70 ; Sykes vs. Company, 6 Blatchf., 496 ; Goodyear vs. Honsinger, 2 Bissell, 1 ; Hockholzer vs. Eager, 2 Sawyer, 361 ; McLaughlin vs. Co., 21 Fed. Rep., 574 ; Keller vs. Stolzenbach, 28 Fed. Rep., 81 ; Kittle vs. Hall, 29 Fed. Rep., 508 ; Waite vs. Chichester Co., 45 Fed. Rep., 258 ; Bovill vs. Crate, L. R., 1 Eq., 388). " The ordinary rules of equity jurisprudence apply in patent " cases as in others, and a temporary preliminary injunction will not

" be granted unless it seems probable that the protection which the " complainant's bill shows he is entitled to, compels it. If he can " receive full protection without such temporary injunction, it will " be refused. It will often be refused also when there has been " great delay on a complainant's part in consequence of which *the* " *defendant has proceeded to build up an industry based on that patent*" (Per BREWER, J., in Keyes vs. Co., 31 Fed. Rep., 560).

It is true that the remedy by preliminary injunction is, in a sense, discretionary. So, also, are all remedies in equity—final as well as interlocutory. They all rest, however, not in the arbitrary, but in the judicial discretion of the court, and where the circumstances of the case absolutely preclude relief in equity, clearly the court can have no greater power to grant interlocutory than to grant final relief. That is the case when complainant has been guilty of laches. Irrespective of the merits of his original rights, a court of equity can give him no aid. " A court of equity which is never active in " giving relief against conscience or public convenience, has always " refused its aid to stale demands when a party has slept upon his " rights and acquiesced for a great length of time. Nothing can call " forth this court into activity but conscience, good faith and reason- " able diligence. When these are wanting the court is passive and " does nothing. Laches and neglect are always discountenanced ; and, " therefore, from the beginning of this jurisdiction there was always " a limitation to suits in this court " (Per Lord CAMDEN in Smith vs. Clay, Ambler, 645, 3 Bro. Ch., 640 ; cited with approval in Sullivan vs. Co., 94 U. S., 812 ; Brown vs. County, 95 U. S., 160, 161 ; Hayward vs. Bank, 96 U. S., 617, 618, and Speidel vs. Henrici, 120 U. S., 387). " To let in the defense that the claim is stale, and that the " bill cannot, therefore, be supported, it is not necessary that a " foundation shall be laid by any averments in the answer of the " defendants. If the case, as it appears at the hearing, is liable to " the objection by reason of the laches of the complainants, the " court will, upon that ground, be passive and refuse relief " (Sullivan vs. Co., 94 U. S., 814 ; Landsdale vs. Smith, 106 U. S., 391 ; Speidel vs. Henrici, 120 U. S. 377). In other words, the existence of laches does not raise a mere question of discretion. It absolutely precludes relief in equity.

The complainant here, therefore, has utterly failed to establish a cause of action for equitable relief. Its situation is such that, whatever were its original rights, it is not now entitled to the aid of a court of equity in enforcing them. Under such circumstances it

is idle to say that any discretion existed in the court below to grant interlocutory relief. Its action in doing so in a case where the facts showed that complainant, under the fundamental rules of equity jurisprudence, was entitled to no relief whatever, was action in excess of power. Such action is always subject to review upon appeal (McHenry vs. Jewett, 90 N. Y., 58).

It is clear, therefore, that the court below should have refused relief to complainant upon the ground of laches.

SECOND.

Complainant is merely part of a combination, the very existence of which is unlawful. That combination, therefore, cannot have the aid of a court of equity in carrying out the illegal purpose of its organization.

The facts are stated in detail in the Principal Brief for petitioner at pages 29 to 34. The capital stock of the complainant is owned by a corporation of the state of New York known as the General Electric Company. The purpose for which that corporation was formed was to terminate competition in the business of electric lighting and itself entirely absorb that business. This was to be done by exchanging its own stock for the stock of all the electric lighting companies save those united in interest with defendant and using all the patents, contracts and other rights of the combination thus formed to crush these outside companies. This purpose is now in process of execution. The General Electric Company has, by such exchange of stock, acquired control of the companies first aforesaid and has thus terminated competition, so far as they are concerned. It is now seeking to complete the work of so doing by using all facilities belonging to any member of the combination thus formed to crush the remaining companies.

There can be no doubt that this whole scheme is unlawful. The Stock Corporation law of New York provides that " no stock corpo-
" ration shall combine with any other corporation or person for the
" creation of a monopoly, or the unlawful restraint of trade, or for the

" prevention of competition in any necessary of life " (Laws of 1892, Ch. 688, Sec. 7). The charter of the General Electric Company in terms provides that " this act shall not be construed as granting to " the corporation hereby created the right to create or maintain any " monopoly or unlawful combination in restraint of trade " (Laws of 1892, Ch. 323, Sec. 10). The act of Congress provides that " every " contract, combination in the form of trust or otherwise, or con- " spiracy, in restraint of trade or commerce among the several states, " or with foreign nations, is hereby declared illegal," and persons engaging therein are guilty of a misdemeanor (Sec. 1) ; " every person " who shall monopolize or attempt to monopolize, or combine or " conspire with any other person or persons to monopolize, any part " of the trade or commerce among the several states or with foreign " nations shallbe deemed guilty of a misdemeanor " (Sec. 2), and the word person shall be deemed to include corporations (Sec. 8, Laws of 1890, Ch. 639 ; 1 Supp. to R. S., 162).

Having secured a charter containing the prohibition above stated and fixing its capital at $100,000, the General Electric Company the next day increased its capital to $50,000,000, and at once proceeded to exchange it shares for those of the constituent companies, including complainant. There can be no doubt that the object of this combination was and is to accomplish the purposes thus declared to be unlawful. Is the combination any less illegal because this unlawful purpose is sought to be accomplished by the use of an agency possibly lawful in itself—by the creation of a corporation? Clearly not; for, under elementary rules, if the result which it seeks to accomplish is unlawful, a combination is itself unlawful, although the means used to accomplish the result would be unobjectionable if used for a lawful purpose.

This rule has been uniformly applied where combinations such as the present have been attempted. The combination is held to be unlawful although the agencies used may in themselves be free from objection. In American Biscuit Co. vs. Klotz, 44 Fed. Rep., 721; Clancy vs. Salt Co., 62 Barb., 395, and Richardson vs. Buhl, 77 Mich., 632, the combination was effected through the agency of a corporation. In People vs. N. R. Sugar Refinery, 54 Hun, 354, affd., 121 N. Y., 582, and State vs. Standard Oil Co., 30 N. E. Rep., 279, there was a board of trustees. In Arnot vs. Coal Co., 68 N. Y., 558, 565; Leonard vs. Poole, 114 N. Y., 371, and Craft vs. McConoughy, 79 Ill., 346, there were contracts in the nature of copartnerships. And other similar cases will be found upon the Principal Brief for

petitioner, at pages 42 to 48. Yet, in all these cases, it was held that the lawfulness of the means used did not affect the unlawfulness of the combination. In the present case, it may be observed, there is the strongest ground for this view. For the use of the corporate organization to accomplish the unlawful result is forbidden by act of Congress and by the statutes of the state creating the corporation, including the very charter of this identical corporation.

A court of equity will not lend its aid in accomplishing this unlawful purpose. No cause of action could arise from an agreement limiting competition. There is no more reason why equity should enforce rights of property for the purpose of making such an agreement effectual. This principle is fully sustained by the case of American Biscuit Co. vs. Klotz, 44 Fed. Rep., 721. The application there was for appointment of a receiver, and a proper case therefor was made, but the court declined to act upon the ground that its action was sought in aid of an unlawful combination.

It may be added that this is but an application of the fundamental rule that he who comes into equity must come with clean hands. "It is not alone fraud or illegality which will prevent a "suitor from entering a court of equity; any really unconscientious "conduct, connected with the controversy to which he is a party, "will repel him from the forum, whose very foundation is good "conscience" (Pomeroy's Equity, Sec. 404). Accordingly, in Appeal of Scranton Co., 122 Pa. St., 154, it was held that a corporation guilty of a fraud upon the rights of the public, cannot appeal to a court of equity to restrain a rival company from competing with it, although the terms of its charter secure to it exclusive privileges. The court said, "the primary object of the institution of a "corporation is the public welfare, and the interest of the stock-"holders is but secondary; hence, the willful frustration of that "intention by the act of a company is a fraud on the public "and the corporation perpetrating it is entitled to no equitable "consideration."

It is clear, therefore, that the present is an application to a court of equity to lend its aid in accomplishing an illegal purpose.

CONCLUSION.

The Writ of Certiorari should be granted.

The power of the court is undoubted. The questions involved are whether the owner of a patent may, with full knowledge, acquiesce in its infringement for five years and then appropriate to himself the business which his inaction has led others to build up, and whether a court of equity should lend its aid in suppressing competition and establishing an unlawful combination in control of one of the leading branches of commerce.

Certainly these may well be deemed to be questions of gravity and importance.

B. H. Bristow,
Of Counsel for Petitioner.

1309 149 U.S. 786

Supreme Court of the United States,

OCTOBER TERM, 1892.

In the Matter of the Petition

of

LA COMPAGNIE GÉNÉRALE TRANSATLANTIQUE for a Writ of Certiorari to the Circuit Court of Appeals for the Second Circuit.

RECORD.

JONES & GOVIN,
Proctors for Petitioner,
45 Cedar Street,
New York.

EDWARD K. JONES,
Advocate.

LIVINGSTON MIDDLEDITCH CO., Printers, 149-153 Leonard St., N. Y.

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1

To the Honorable Addison Brown, District Judge of the United States for the Southern District of New York:

The cross-libel and complaint of Robert Singlehurst, Robert Brocklehurst, George William Brocklehurst, Henry Brocklehurst, Septimus Brocklehurst, Hugh Hathorn Nicholson and Eliza Jane Hillis, against La Compagnie Generale Transatlantique, in a cause of collision, civil and maritime, articulately propounds and alleges as follows: 2

First.—Your cross-libellants at all the times hereinafter mentioned were, and now are the owners of the British steamship *Lisbonense* of Liverpool, England, and the respondent La Compagnie Generale Transatlantique at said times was and is, as your cross-libellants are informed, a corporation created under the laws of the Republic of France and 3 the owner of the French steamship *La Champagne* of Havre.

Second.—That on the morning of December 7, 1890, the said steamship *Lisbonense* was proceeding on her voyage from ports in Brazil to the port of New York, having on board the mail, and a large and valuable cargo, and being then in a staunch and seaworthy condition.

That at about 5.20 o'clock, ship's time, the said 4 steamship passed the Scotland Lightship, and proceeded on until she had the Swash Channel Range lights on the proper bearings for a vessel bound up the Swash Channel, whereupon she was steadied on her course, the engines going at full speed, and the ves-

5 sel making about 9½ to 10 knots; that at this time and until after the collision hereinafter mentioned, it was dark, and the atmosphere, although not entirely free from haze, was sufficiently clear to allow the regulation side and masthead lights of vessels to be seen at a distance amply sufficient for all purposes of navigation. That the tide was the first of the ebb, and the wind moderate from the northwestward. That during said time the *Lisbonense* had her regulation side lights and masthead lights prop-
6 erly fitted and brightly burning. Her master and a licensed Sandy Hook pilot were on the bridge and in charge of her navigation, an efficient lookout was stationed in the bow and a full and sufficient complement of officers and seamen were also on duty at their proper places and attentive to their respective duties.

Shortly afterwards and while proceeding on her said course, a steamer's green light and masthead light were seen at a distance, judged to be consider-
7 ably more than a mile, bearing between four and five points off the *Lisbonense's* port bow; and the said steamer, which afterwards proved to be the *La Champagne*, of Havre, was seen to be showing colored lights, which were taken to be signals to observers on shore, and were not precisely noted nor understood by those on board the *Lisbonense;* close watch was at all times kept of the said steamer's lights, and soon thereafter, as the two vessels approached nearer to each other, a single blast of
8 the whistle of the *Lisbonense* was sounded, which *La Champagne* answered with a like blast, and thereupon the helm of the *Lisbonense* was put aport, and she swung to starboard as much as was prudent for her to swing in view of her intended passage up the Swash Channel, and of the conditions of navigation then prevailing. Her helm was then steadied and she proceeded up

towards the Swash Channel with her engines full speed ahead. That thereafter, as the two vessels were fast approaching each other, three blasts were heard from the whistle of *La Champagne*, and the helm of the *Lisbonense* was put hard aport in order to give as much space as was possible for the reversed engines indicated by the said three whistles to take effect; that it appeared to those in charge of the navigation of the *Lisbonense* that the said steamships were approaching so as to involve risk of collision, and at the same time it also appeared to them that, having due regard to all the dangers of navigation and to the special circumstances under which the vessels then were, owing to the two signals from *La Champagne's* whistle, her then position, and the hail from her bridge to the *Lisbonense* to go full speed ahead, it was necessary for them to continue on with the engines going full speed ahead, and they therefore made no change in the movement of her engines. That subsequently and after *La Champagne* had got so as to head abaft the beam of the *Lisbonense*, and when it was apparent that *La Champagne* must either pass under the stern or strike her port quarter, the *Lisbonense's* helm was put hard astarboard with a view of escaping a collision if possible and of dimishing its consequences if a collision was inevitable, and her stern was thereby swung to starboard. That thereafter, *La Champagne*, not having lost her way, came on and struck the *Lisbonense* with the bow on the port quarter about twenty feet forward of the extreme afterpart of the vessel at an angle between their port sides of more than a right angle cutting into her several feet, breaking and tearing down some of the partitions, and then tearing and damaging the port quarter and counter of the *Lisbonense* from that point aft; cutting her down nearly to the water's edge, and knocking overboard a quan-

9 10 11 12

13 tity of the ship's stores which were kept in the part of the vessel nearest to and abaft of the point first cut into.

THIRD.—That after the said collision the *Lisbonense* was stopped for several minutes to ascertain damages, and it was found that she was seriously injured, whereupon as it was seen that the other steamer had a tug alongside and assisting her, and that she made no signals of distress, the *Lisbonense* 14 proceeded to Quarantine and there anchored, when it was discovered that a part of the other steamer's bow had been left sticking in the hole she had made in the *Lisbonense.*

FOURTH.—That the place of collision was in the northern half of the main ship channel shortly before reaching the turn to pass into Gedney's Channel.

FIFTH.—That the said collision was not caused nor 15 contributed to by the default, or negligence or inattention of your cross-libellants, nor of those in charge of the navigation of the *Lisbonense*, nor of her officers and crew, but was caused solely by the default, negligence and inattention of those in charge of the navigation of *La Champagne* in the following respects:

I.—In that *La Champagne* having the *Lisbonense* on her starboard bow and their courses crossing so as to involve risk of collision, failed and neglected to 16 keep out of the way of the *Lisbonense.*

II.—In that after having exchanged signals of one blast of the whistle, *La Champagne* failed and neglected to put her helm to port.

III.—In that *La Champagne* did not sooner stop and reverse her engines.

IV.—In that *La Champagne* did not have and maintain a proper lookout according to law, and those

in charge of her did not see, or if they saw, did not heed the lights of the *Lisbonense*, and thereupon take timely precautions to avoid the collision. 17

V.—In that *La Champagne* was otherwise in fault, and by the negligence of those in charge of her navigation, brought about and was solely to blame for the said collision, in particulars to be hereafter shown on the trial of this action.

SIXTH.—That the damages caused to the *Lisbonense* and to your cross-libellants by the said collision, including necessary repairs, demurrage and other expenses amount in the aggregate as nearly as can now be ascertained, the sum of twenty-five thousand dollars ($25,000). 18

SEVENTH.—That on or about the 19th day of December, 1890, the respondent herein, La Compagnie Generale Transatlantique, exhibited its libel in the United States District Court for the Southern District of New York against your libellants, said steamship *Lisbonense*, her engines, &c., claiming to recover the sum of $106,000 as damages by reason of the collision set forth in their said libel and in this cross-libel, and they thereupon caused process of arrest to be issued upon their said libel, under which your libellants' said steamship *Lisbonense* was taken into custody by the United States Marshal for the Southern District of New York, and was not released until your libellants had appeared and filed their claim to their said steamship as owners and had given bail therefor to the amount of her appraised value. That the said suit is still pending and undetermined in this Honorable Court. 19 20

EIGHTH.—That all and singular the premises are true and within the admiralty and maritime jurisdiction of this Honorable Court.

21 Wherefore, your cross-libellants pray that the respondent La Compagnie Generale Transatlantique may be required to give security in the usual amount and form to respond in damages as claimed in this cross-libel, and that the said respondent be decreed to pay the said damages, and that your libellants may have such other and further and different relief in the premises as justice may require.

SIDNEY CHUBB,
Proctor for Cross-libellants.

22

Southern District of New York, ss.:

SHIPTON GREEN, being duly sworn, deposes and says: That he is the attorney in fact of the cross-libellants above-named, in the United States; that the said cross-libellants are all without the United States and more than 100 miles from the place of trial. That he has read the foregoing cross-libel and knows the contents thereof, and that the same
23 is true to the best of his knowledge, information and belief.

SHIPTON GREEN.

Sworn to before me this 12th day of January, 1891.
[SEAL.] EDWIN B. WOODS,
Notary Public,
Kings Co.
Certificate filed in N. Y. Co.

24 (Endorsed)—Cross-Libel—Filed Jany. 21, 1891.

25

To the Honorable Judge of the District Court of the United States for the Southern District of New York:

The answer of La Compagnie Generale Transatlantique to the cross-libel exhibited by Robert Singlehurst, Robert Brocklehurst, George William Brocklehurst, Henry Brocklehurst, Septimus Brocklehurst, Hugh Hathorn, and Eliza Jane Hillis, 26
against the said respondent in a cause of collision, civil and maritime, articulately propounds and alleges as follows:

First.—This respondent is not advised except by the allegations of the said cross-libel as to whether or not at all the times therein mentioned the said cross-libellants were and are now the owners of the British steamship *Lisbonense* of Liverpool, England, and leaves the said cross-libellants to make such proofs touching and concerning the same as they 27
may be advised. This respondent, however, admits that at said times it was and still is a corporation created by and existing under the laws of the Republic of France, and that it is the owner of the French steamship *La Champagne* of Havre, France.

Second.—This respondent is informed and believes that on the morning of December 7, 1890, the said steamship *Lisbonense* was proceeding on a voyage from ports in Brazil to the port of New York, and 28
that a collision took place on that morning between the said steamship *Lisbonense* and the steamship *La Champagne*. But this respondent denies all the facts stated in paragraphs "Second," "Third," "Fourth" and "Fifth" of the said cross-libel, except as just hereinafter admitted, qualified or otherwise denied.

29 THIRD.—And this respondent alleges that the facts touching and concerning the said collision were as follows:

On Saturday, the 6th day of December, 1890, the said steamship *La Champagne* left her dock at Pier 42 North River, in the City of New York, at about twenty-five minutes after twelve o'clock, P. M., bound on one of her regular voyages to Havre, with a large and valuable cargo, and a number of first and second class and steerage passengers. The
30 weather was then thick, requiring great caution to avoid danger. After hauling out into the stream and proceeding down the North River and upper bay, the fog became so thick that the pilot and master of the steamer both deemed it unsafe to proceed further, and after passing through the Narrows the steamer was brought to anchor, and anchored at about twenty minutes past two o'clock P. M., on the west side of the usual course towards the main channel and near Hoffman's Island, where
31 the steamer remained until about four o'clock the following morning which was Sunday, the seventh of December, 1890, when the weather having cleared up the steamer hove anchor and proceeded on her way through the main ship channel towards sea. At that time it was still dark, but the weather was clear though the sky was overcast. The atmosphere, however, was so free from fog and other impediments to vision that the ordinary regulation side lights of vessels could be seen without difficulty
32 or obstruction for several miles.

At this time, and until the collision hereinafter mentioned, *La Champagne* had her regulation sidelights and masthead light all supplied by powerful electric currents, properly set and brightly burning. Her commandant, a duly licensed pilot, and a corps of competent officers were in charge of her navigation and stationed on the bridge. Efficient lookouts were also stationed forward at the bows, as well as

on the bridge, and the usual complement of quarter- 33
masters, boatswains, and able seamen were also on duty at their proper places and attentive to their respective charges. Thus officered and manned, *La Champagne* proceeded around the Southwest Spit and through the main or Bayside Channel towards and past Sandy Hook at half speed, which was at the rate of about ten and a half knots per hour, her engines making thirty-five revolutions per minute. A strong ebb tide was then running accompanied with a strong northwest wind, and it was therefore neces- 34
sary for *La Champagne* to have and maintain the speed at which she was then going in order to manœuvre with safety, and to avoid being forced aground by the current and wind. When abreast of Sandy Hook the red or port sidelight of a vessel which afterwards proved to be on the British steamship *Lisbonense*, was descried bearing between two and three points on the *La Champagne's* starboard bow. This light was carefully watched. Whilst pas-ing the signal station at Sandy Hook the usual 35
colored signal torches of the line to which *La Champagne* belonged were burned on *La Champagne's* starboard side, thus indicating to all who saw them what steamer she was, and which signals were plainly visible to, and should have been seen by those in charge of the *Lisbonense*. Notwithstanding these signals and the other fixed lights on *La Champagne* under the circumstances of tide and wind had the right of way, and, notwithstanding the obvious fact to those in charge of the navigation 36
of the *Lisbonense* that *La Champagne*, by reason of her great length and heavy draught, could neither safely manœuvre in the main channel, nor turn to the starboard and take the south channel, the *Lisbonense* continued on her course intersecting that of *La Champagne*. As the two vessels approached each other a blast of the whistle of the *Lisbonense* was sounded, which *La Champagne* answered with

37 a like blast in order to notify those in charge of the *Lisbonense* that her whistle had been heard, whereupon, notwitstanding the danger of the situation and the risk of drifting aground by the force of the wind and the southerly set of the tide, *La Champagne's* engines were stopped and danger of collision being imminent, three blasts of her whistle were sounded and her engines reversed full speed astern, but before her headway could be brought to a standstill, the *Lisbonense* dashed across the bows of *La*
38 *Champagne* at a high rate of speed which she had in no way attempted to check or arrest, and the two steamers collided at about right angles, the port quarter and taffrail of the *Lisbonense* coming into contact with *La Champagne's* stem, carrying away several feet of the latter above the water line, crushing and tearing several of the plates and otherwise damaging her in her port and starboard bows.

The course of *La Champagne* from the time those in charge of her navigation saw the red light of the
39 *Lisbonense* until the collision was that of the line and on the starboard side of the main channel, and the place of collision was shortly before reaching the turn to pass into Gedney's Channel.

After the collision *La Champagne* called for the assistance of tugs, and with their aid remained in and about the place of collision for about a quarter of an hour to ascertain her injuries and to stand by and render aid, if necessary, to the other steamer. But the *Lisbonense* proceeded on up towards the
40 Narrows and soon disappeared from sight without stopping to inquire into the nature and extent of *La Champagne's* injuries, or to ascertain whether or not she needed relief in her distress. Her damages were found to be so great as to render it unsafe for her to proceed on her voyage, and she slowly returned to New York to be lightened and repaired so as to resume her journey.

The said collision was in nowise due to the fault, 41
inattention or negligence of *La Champagne* or those in charge of her navigation, but was caused solely by the fault, omission and negligence of those in charge of the navigation of the *Lisbonense*, in that—

1. She did not have and maintain a proper lookout, and those in charge of her did not see or if they saw, did not heed the lights of *La Champagne*, and thereupon take timely precaution to avoid collision.

2. She wrongfully refused to yield the right 42
of way to *La Champagne*, and persisted in crowding the latter in her efforts to pass out of the channel in safety.

3. She wrongfully attempted to cross the bows of *La Champagne* when it was apparent that she could not do so prudently and with safety.

4. She omitted and failed to seasonably turn either to port or starboard, as she could have easily done on account of her comparatively 43
light draught, but, on the contrary, continued at an unabated speed on her course until it was too late to avoid collision.

5. She wrongfully omitted and failed to slacken her speed and stop and reverse, as she was required to do by law, when risk of collision appeared.

6. She wrongfully omitted and failed to stand by and assist *La Champagne* after the collision, but disappeared from sight and continued 44
her way up the channel without stopping to inquire as to the damage and peril of *La Champagne* and her passengers; and

7. She was otherwise in fault, and by the negligence of those in charge of her navigation, brought about and was solely to blame for the said collision, in particulars to be hereinafter shown on the trial of this cause.

45 FOURTH.—This respondent denies the allegations contained in the sixth article of the Cross-libel, and alleges, upon information and belief, that the damages therein stated are grossly overestimated.

FIFTH.—This respondent admits the allegations contained in the seventh article of the cross-libel.

SIXTH.—That all and singular the premises are true and within the admiralty and maritime jurisdiction of this Honorable Court.

46 Wherefore, this respondent prays that the said cross-libel be dismissed with costs.

COUDERT BROTHERS,
Proctors for Respondent.

EDWARD K. JONES,
Advocate.

UNITED STATES OF AMERICA,
Southern District of New York, } ss.:

AUGUST D'OUVILLE, being duly sworn, deposes
47 and says:

That he is acting general agent of the above-named respondent for United States and Canada; that he has general power as such acting agent to transact all business for the said respondent, including authority to commence and defend all actions necessary or proper in its behalf; that he has read the foregoing answer to the cross-libel filed in this cause and knows the contents thereof, and that the allegations therein contained are true to
48 the knowledge, information and belief of deponent.

AUG. D'OUVILLE.

Subscribed and sworn to before me
this 7th day of February, 1891.

FREDERICK KOPF,
[SEAL.] Notary Public (74),
N. Y. Co.

(Endorsed)—Answer.—Filed Feby. 7, 1891.

UNITED STATES DISTRICT COURT, 49

SOUTHERN DISTRICT OF NEW YORK.

LA COMPAGNIE GÉNÉRALE TRANSATLANTIQUE

vs.

The British Steamship "LISBONENSE," her Engines, &c., and against JOHN KING, her master. 50

ROBERT SINGLEHURST *et al.*

vs.

LA COMPAGNIE GÉNÉRALE TRANSATLANTIQUE.

Before Hon. ADDISON BROWN, *Judge.*

NEW YORK, June 9, 1891. 51

APPEARANCES:

COUDERT BROTHERS, Esquires (Mr. Jones), for the *Champagne.*
SIDNEY CHUBB, Esq., for the *Lisbonense.*

JEAN LAURENTE BOYER, being duly sworn and examined (through an interpreter) as a witness for the *Champagne*, testifies:

By Mr. Jones: Q. You are the commandant of 52 the steamship *La Champagne* of the French Line, and were such on the 6th of December last year? A. I was.

Q. Do you remember starting on a voyage from New York to Havre on that day? A. I do very well.

Q. What time did the *Champagne* start? A. I may be deceived—all the dates and times are writ-

53 ten in the books of the ship—but I think it was about half-past 12 at noon of the 6th.

Q. And did you proceed at once to sea, or was your course arrested by any cause before you reached the ocean? A. Our course was arrested by the fog which got thicker and thicker.

Q. What did you do? A. We let go the anchor in the vicinity of Hoffman's Island, Quarantine.

Q. What time of day? A. About 2 o'clock; I don't recollect exactly.

54 Q. How long did you lie at anchor? A. Until about 4 o'clock of the next morning, the 7th.

Q. That was Sunday? A. Sunday.

Q. What did you do at 4 o'clock the next morning? A. We recommenced our course, as the weather had become clear, with a breeze from the northwest.

Q. What channel did you take in going out? A. The main channel.

Q. I wish you would state to the Court in your
55 own way the incidents that occurred between the time you hove anchor and started on your way out of the channel and the time of the collision with the *Lisbonense*. I would like you to give the Court in your own way a complete version of the facts as you now recall them.

By the Court: Q. What time did you get under way? A. About four o'clock.

Q. Hoffman's Island is below the Narrows? A. Yes, sir.

56 By Mr. Jones: Q. Now answer my question. A. We left about 4 o'clock in the morning; as I have just said, the weather was clear and we thought that we should be able to go out because the lights to guide us out were visible. At that time the weather cleared up because the wind came around to the northwest. It took us a little while to get under way, because we were heading in the opposite direc-

tion to our course on account of the wind having 57
changed around to the northwest.

By the Court: Q. That is why I asked what time you got under way. A. I can't say exactly, but I think getting under way took us about half an hour. The tug we had taken along with us assisted us in turning the ship. We reached Southwest Spit without any difficulty, but as the current was very strong we were not able to turn the Southwest Spit without the assistance of the tug.

Q. The current was which way? A. On the port 58
hand.

Q. Was the current ebb or flood? A. We left the Southwest Spit on the port hand.

Q. Was the tide flood or ebb? The tide had been on the ebb for about two hours. After we had passed the Southwest Spit we entered into the main channel, or Bay Side Channel; we continued in this channel, the screw making 35 revolutions. According to my experience with the ship this should have given her a speed of about ten knots and a 59
half, very nearly. When we passed opposite the two lights of Sandy Hook we burned the company's signal.

Q. Signal of what? A. This was three torches burned simultaneously; the blue one forward, white in the middle of the ship and a red one aft.

Q. As a signal of what? A. Of La Compagnie Transatlantique. It was for the purpose of making known to our consul and our agent the time we were passing Sandy Hook. After that we at once 60
made another signal upon the request of the pilot to the pilot boat; that consisted of a torch of blue burned on the forward part of the ship.

Q. The signal meaning what? A. This was notice to the pilot boat, station boat, to get ready her boat to come and take our pilot off.

61 Q. The pilot boat was outside? A. Yes, sir. At the entrance of the bar.

By Mr. Chubb: Q. The station boat at the bar? A. Yes, sir.

By Mr. Jones: Q. That was nearly right ahead, was it? A. A little on the starboard hand.

By the Court: Q. Could you see the pilot boat at that time? A. I don't recollect.

By Mr. Jones: Q. Do you recollect whether the signal you gave to the pilot boat was answered by
62 the pilot boat? A. I don't think so. At a very short interval of time before passing opposite the light of Sandy Hook we saw the *Lisbonense.*

By the Court: That is before the signals you mentioned? A. Just before, immediately before.

By Mr. Jones: Q. How did the *Lisbonense* bear? A. About two points on the starboard hand from our course.

Q. Did you see the *Lisbonense* or only see her light? A. Her white light and her red light.

63 Q. Was it already daylight and sufficiently clear to enable you to see the hull of the *Lisbonense?* A. No. It was very clear but it wasn't daylight.

Q. Do you recollect now at what time you passed Sandy Hook? A. I think that the two lights of Sandy Hook were in line at 5.20; but this is exactly noted upon our log-books, because this is the commencement of our postal trip, the beginning.

Q. You always note that? A. We always note it and send a writing stating it to the consul, to our
64 consul.

By the Court: Q. That is our local standard time, is it? A. Yes, sir; New York time.

By Mr. Jones: Q. Now proceed with your narrative. A. The lights of the *Lisbonense* indicated that there was a lower vessel coming up in the Lower Swash Channel. If we had been outside there is no question but what we should have come to the

starboard to allow the *Lisbonense* to go by. But 65
here we couldn't do it, because we should have run into danger.

Q. What danger? A. The bank of sand which was alongside of the bar.

Q. In other words, you would be in danger of going ashore; is that what you mean? A. Yes. If we had turned too suddenly we were in danger of running to on the bottom of Sandy Hook; if we had continued farther on we were in danger of going ashore on the shallows in the south of the bar. As 66
I am very well acquainted with the topography of the harbor of New York, according to the chart, I saw at once the impossibility of our coming to on the starboard hand because we were drawing 25½ feet of water and under those conditions we couldn't cross over the shoal water, shoal places. The danger would have been very great because it would have resulted probably in the loss of the ship, because the tide was running out with great deal of force and we should have had to have stayed there 67
a considerable number of hours before we would have been able to have tried to get the ship off, and at that season of the year, nearly the middle of December, it was almost a sure loss of the ship. Under those conditions I immediately saw there was no question but what the only thing to do was to continue our course with prudence.

By the Court: Q. How far apart were the vessels at the time you are speaking of? A. That can be easily ascertained by examining the chart, since 68
we have the position of the *Champagne* and the bearing of the *Lisbonense*. The *Lisbonense* was certainly in the Swash Channel and her position ought to be easily determined. We were still a little distance apart.

Q. What you have been saying within the last

69 few minutes, does that have reference to the time you first saw the *Lisbonense's* lights? A. Yes.

Q. Before any signals were exchanged between you? A. Yes, sir; at the beginning we were not able to judge the speed of the *Lisbonense*; in order to know whether we were in danger of colliding with her it was necessary to observe her for a certain length of time, and for that purpose I posted myself forward to take her bearing carefully by the instrument there and follow her course.

70 By Mr. Jones: Q. That is what is known as an alidade? A. What is known as an alidade, it turns upon a graduated circle. All this passed of course in a very few short instants. We appreciated fully the importance of the situation, and as the pilot has told me, he was on the point of giving the order to blow the whistle twice when the *Lisbonense* whistled. We replied to her blast of the whistle by a like blast of the whistle and continued on our course.

71 By the Court: Q. One whistle came from the *Lisbonense* and you answered with one? A. He told me later that was his intention. The *Lisbonense* blew one whistle to which we replied with one similar blast of the whistle.

Q. How far apart do you think the vessels were at that time? A. I can't say unless I am allowed to look at the chart.

Q. What was your opinion at that time, not what you think now? A. Oh, a great distance, very

72 great distance.

Q Do you mean an eighth, or quarter, or half a mile; give me some idea? A. Oh, a great deal more than that

Q. Nearly a mile do you think? A. More than that. I think we were then about opposite black buoy No. 5, which is right by Sandy Hook, and that

the other vessel was a long distance down the Swash 73
Channel, at least four miles.

Q. At the time the whistles were exchanged you were about off black buoy 5? A. That is my opinion of it only, because the buoy wasn't to be seen.

Q. And your impression was at that time that the *Lisbonense* was some three or four miles away? A. I didn't try to estimate it, at that time it was impossible. I was watching her bearing to try to estimate what her speed was and see whether we were 74
approaching the same points.

By Mr. Jones: Q. Have you now, or had you at that time any definite idea of the distance of the *Lisbonense*? A. I had an approximate idea from my knowledge of the chart.

By the Court: Q. Where did you suppose the *Lisbonense* to be at that time? A. I think that she was about one-third of the distance from the Scotland Lightship to the intersection of the two channels, the Swash and the main channel. 75

Q. That is two-thirds the distance down to the Lightship? A. Yes, above.

Q. What is the buoy at the junction of the two channels now? A. B4 and B3. Formerly it was between B3, B4 and B5 and B6, before this occurrence.

By Mr. Jones: Q. Go on. A. Continuing my course, I was able to see that the two ships were following such courses as would bring them in collision. 76

By the Court: Q. This is after the exchange of signals? A. Yes, sir. I recommended that the pilot should have great care after I had taken sufficient time to ascertain the bearing of the *Lisbonense*. The pilot was very cool; he didn't apparently have any fear but what the *Lisbonense* was going to allow us to go by. I explained to myself perfectly his

77 coolness in this situation, because it is the habit of the small ships to let the big ones have the road. Aboard the *Champagne* it was impossible for us to change our course on account of her great draft of water, but in order to reply ("*repondre*") to her signal we kept ourselves on the right-hand side of the channel as much as it was possible in order to answer to the invitation of her signal. We therefore kept ourselves on the south side of our channel as much as was prudent, and perhaps even little more
78 so, because later, just at the time of the collision, we were so far on the south of the channel that we had Gedney's buoy on the port side of us.

By the Court: Q. Which buoy is Gedney's buoy? A. I speak of the buoys together; the six buoys that light Gedney's channel.

Q. The whole of them? A. There are three red and three white, lighted by electricity.

Q. Were all on your port hand? A. A little on the port side. Whereas, with the current we had, if we
79 had been all alone we should have kept them a little on the starboard hand. And while we were watching the *Lisbonense* in this way we noticed that we saw the red light of Sandy Hook.

By. Mr. Jones: Q. That is, you were in the range of the red sector of the Hook Beacon? A. We were in that part of the red sector of the light of Sandy Hook which indicates the passage of the electric lights for the Gedney's channel. That red light is put there to indicate to ships that they mustn't
80 anchor there on account of the Electric wires. Continuing our course, as the bearing of the *Lisbonense* didn't change, I saw that we were going to have a collision, or that in continuing we were in such condition there would be a collision. To avoid a collision it was necessary that one of the elements of the situation should be changed. I call the elements of the situation the two speeds—the speed

of each ship, and the courses followed by each. Since the bearing didn't change, this was an indication that the collection of all the elements was such that they would arrive at the same point. It sufficed to avoid a collision that one of the two ships should modify one of these elements, and that the other three elements should remain as they were. It was our duty not to touch our helm because of the danger of losing our ship. The only element that would give change was the speed of our ship. 81

By Mr. Jones: Q. What did you do? A. We could increase our speed or diminish it. 82

Q. What did you in fact do? A. When I saw that we were in real danger, and that the danger was imminent because the *Lisbonense* did nothing, I gave the order to stop; and at the end of a few seconds, seeing the bearing of the *Lisbonense* remain the same, I gave the order to put the engine full speed astern, and I had the order repeated by the telegraph that it was necessary to set the engine going at the greatest speed possible. I had every reason to believe, according to what I have just said, that the danger would be avoided in this way. But it seemed to me during a very short interval of time that the bearing of the *Lisbonense* increased, which was astonishing because my speed was decreasing. I may be deceived in my idea but it is very clear that the bearing decreased and the *Lisbonense* passed ahead of us. 83

By the Court: Q. What do you mean by the bearing increased? A. I mean that the bearing of the vessel, which was exactly twenty-three degrees on the starboard hand at the beginning, appeared to me for an instant to become greater, that she appeared to come more on the starboard hand. I don't want to affirm that this was so, but it appeared to me so. I thought that the *Lisbonense* could easily have crossed ahead of us, because my 84

85 ship lost her speed very fast. When the *Lisbonense* crossed she was about half way by us, that is, as far as her bridge about. Mr. Dupont, the second captain, who was forward, shouted to her to go at full speed, because if at that moment the *Lisbonense* had been able to increase her speed we should have passed without accident.

By Mr. Jones: Q. How did the *Lisbonense* bear from your ship when that cry was made by Mr. Dupont? A. She was right about half way by us,
86 ahead of us, half way across.

Q. And what was the angle of her course with reference to the line of your course? A. We must have been about perpendicular one to the other, at right angles; but the stem of the *Champagne* was falling off a little all the time to starboard under the influence of the engine. When about two-thirds of the *Lisbonense* had got by, and we had the hope she would go by altogether, we touched her aft.

By the Court: Q. With your stem, I suppose? A.
87 Our stem. I stopped the engine and then I set it going astern again almost at once. I asked the pilot De Vere, what was to be done to the *Lisbonense* at once. Evidently he didn't understand my question right away because he replied that I ought to examine my own damages. But that was already done; I had been informed that everything was up above the water, as I expected at the first shock, therefore my preoccupation was not for my ship, but for the *Lisbonense*. I feared the blow in the
88 quarter of the *Lisbonense* had broken or put his screw in bad condition, and his steering apparatus as well—his rudder. And we searched with the greatest attention to find out where she had gone, but we were unable to see her. We remained searching for her at least a quarter of an hour in the most minute manner. And we held ourselves up

against the current during this time by the aid of 89
the tug *Assistance.*

Q. The tug was alongside all the time? A. The while we were going out she kept herself astern accompanying us out As I had need of the ship up to the *Spit* I had kept him in case of necessity to take off the pilot. It was while we were looking out trying to find the *Lisbonense*, that we noticed that we were in the red sector of the Sandy Hook Beacon. After this quarter of an hour delay I decided to return to New York, and we ma- 90
nœuvred in consequence with the aid of the tug *Assistance*, but as the wind and tide were very strong we fell upon the buoy B No. 3, got entangled with it, and according to my idea this is what saved the *Champagne.*

Q. What was it got entangled, what part of the *Champagne* got entangled? A. The port side. We had half turned around to come back when we came against the buoy, and my idea is if this buoy hadn't held us up we would have been ashore on the south 91
side. But our ship had too great draft to allow the buoy to pass under our keel; we therefore remained as if we were anchored by this buoy. For that matter there were two buoys at this place: there was an ordinary buoy and a buoy with a spar; the spar buoy passed under the ship but the large buoy couldn't pass and it held us there. I let go one anchor to keep the current from swinging the forward part of the ship, and as the buoy got snarled up in our screw and was dragging along the ship 92
we had to take it out to untangle it. A passing tug assisted us in getting the buoy clear of the ship and we continued.

By Mr. Jones: Q. Do you recollect the force of the wind as you were passing Sandy Hook? A. It was a fresh breeze, what is known as 5 or 6 on the Beaufort scale.

93 Q. What is your estimate of the force of the tide at that point off Sandy Hook on the morning in question?

Objected to, that the force and effect of the tide is something to be determined in another way.

The Court: If the master knows anything about the speed of the tide currents I will allow him to answer.

94 A. At what precise point?

Q. When you were opposite Sandy Hook? A. It was very strong if I am to judge by the difficulty we had in turning the Southwest Spit. I should estimate it very near between two and three knots; I know that the northwest wind increases the force of the ebb tide very much.

Q. What is the course and set of the tide at that locality if you remember? A. I think the tide runs about southeast at that point there.

95 Q. That is the ebb tide? A. Yes, sir.

Q. And principally through the south channel; am I right in that? A. I don't know, because I never have been out through the south channel.

Q. What was the draft of the *Champagne* on the morning of the collision? A. Twenty-five feet six inches.

By the Court: That was aft? A. That was about her average draft as we trim the ship before going out.

96 By Mr. Jones: Q. Do you recollect whether there was any slackening of your speed between the time you sighted the *Lisbonense* and the time you stopped the engines for the purpose of reversing to avoid the collision? A. No, we continued 35 turns until we stopped.

Q. What principally engaged your attention from the time you sighted the *Lisbonense* until the collis-

ion? A. Her bearing, in order to form an idea 97
whether there was or was not a danger of collision. I didn't leave the alidade all this time.

Q. Do you remember at what time the collision occurred? A. I think, as I recollect, it was 5 o'clock 29 minutes.

Q. You have already said something about being on the right-hand side of the channel at the time of the collision, and that you noticed immediately after that you were in the red sector of the Hook Beacon. Will you please take this chart and look at it care- 98
fully and mark the place where the collision occurred? A. I can't exactly, that is, I can't say under oath whether we were more or less east, because I don't know exactly the direction of the range lights of the Swash; I think we had just passed out of the axis of the Swash Channel; I suppose that on account of the occurrences which happened after we fell against the buoy. That which I can say is that immediately after the collision my third lieutenant said, "There is the 99
Lisbonense," and pointed out the red light. It wasn't the *Lisbonense*, but was the beacon on Sandy Hook.

Q. With that explanation, just mark the place of collision? A. My third lieutenant says, "There is the ship that has got several red lights," and it was the red light of the schooner and the red light on the Hook, and that was immediately after the collision.

By the Court: Which of the buoys was the buoy 100
that you fouled with? A. (Indicating on the Chart B3).

Q. Your vessel at the collision you supposed to be to the northward of B3? A. Just about up with it.

Q I understood you as you were turning around to head to the northward your vessel fouled when

101 about half way round with B3 under her bottom which prevented her sagging down to the southward? A. As we turned we did head in, but I think the collision took place right in the neighborhood of the buoy; and the current turned the ship around in that way.

Q. Did you turn with your head to the southward or northward? A. The engine going eastern and the stern coming up first.

Q. The head going to the southward? A. When
102 we were pointing about south-southwest we went ahead; we had made two manœuvres to turn. The first manœuvre that we attempted was to turn in the direction in which we were going, coming-to on the starboard; but the tide was very strong and the tug took hold badly, and we tried to round in the other way to come to port, but we made a very short turn on that, and then I convinced the pilot the best way was to come to starboard, because our engine going astern would bring her around to star-
103 board.

By Mr. Chubb: Q. And you continued under a reversed engine until your head was pointing about southwest? A. As soon as the tug *Hudson* got clear of the buoy on our port quarter, with our starboard anchor down, the wind and current swung the ship right around.

Q. The stern to the southward? A. To the southeast.

By the Court: Q. Won't you put the models to
104 show how you lay when you fouled the buoy? A. It was in the screw itself. (The witness places the models as requested.)

Q. Your starboard anchor held and she swung around, and you went on in that way? A. Yes, sir.

By Mr. Jones: Q. The angle of collision, I presume, from what you have already said as to the course and bearing of the *Lisbonense* when Mr.

Dupont shouted to go full speed, was at right angles? 105
A. It was about a right angle, but Mr. Dupont had given me some further information since that.

Q. Never mind about that. Did the *Lisbonense* stop, stand by and offer any assistance to you after the collision? A. I don't know whether she stopped: I know that we were unable to see her again, although we were all looking out for her. She made no sign either by light or by sound.

Q. And you neither saw nor heard of her after the collision until you came to New York? A. 106
No, not at all.

Q. Have you made any experiments with the *Champagne* since the collision, to demonstrate her powers of turning upon the helm and otherwise manœuvering? A. Yes, good while ago. Three years ago I made trials especially for the purpose of estimating as to the difficulty of turning southwest spit.

Q. And more recently you have made some experiments to demonstrate her stopping powers, 107
haven't you? A. Yes, in order to prove to myself what she did at that time.

Q. What was the result of these experiments?

Objected to, that it must be known first what methods were taken to obtain the exact results.

Q. What is the result of the experiments that you have made to show within what distance the *Champagne* may be stopped, and in giving an 108
answer to that question, please state the condition under which the experiments were made? A. Here are the conditions under which I found myself: I was coming out of the port of Havre without any tide, slack water and without any wind. The engine had been going for a certain length of time at 35 revolutions.

109 By the Court: Q. What speed does that give? A. Ten knots and a half.

Q. How long had that been going, long enough to acquire her full speed at that revolution? A. Yes. This was going out of Havre, and we had been going for several minutes, and she had acquired her full speed.

By Mr. Jones: Q. Did you make a minute in writing of the result of that experiment? A. I did; of which everything is written down. I don't re-
110 member the figures, the hours, distances or bearings, but everything is indicated there.

Q. Will you please refer to that minute and produce it? A. This is it; I think it is here. The course of the ship was south 67 degrees west by compass. Engine going ahead 35 turns, speed ten knots and a half. The draft of water was about the same as at the time of the collision, that is, about 25½. We had a full cargo of goods and the bunkers were full of coal. I stopped the engine opposite the buoy called
111 the Grand Plackard at 7 o'clock 30 minutes and 17 seconds.

By the Court: Q. That is when the order to stop was given. A. That was the time I gave the order. After an interval of 23 seconds, that is to say, at 7.30 40 seconds, I gave the order to go astern full speed. I noticed that the ship was entirely stopped at 7.33 10, and I ordered the engine stopped. I ascertained that the ship was entirely still not only by looking at the water alongside, but also by points
112 along the land that I noticed the bearing of. An officer followed her movements by the compass, another officer noticed the bearings of fixed points on the alidade. I myself was at another alidade on the other side. By the heading of the ship at the moment she was stopped I was able to trace on the chart the position of fixed points. The result of it is, that by the time the ship had completely stopped

she was heading north 87 degrees west by the com- 113
pass. That is to say, the forward part of the ship had come to starboard 26 degrees, the helm, the tiller remaining amidships.

By the Court: Q. I understood you to say you were going south 67 degrees west? A. That is right. By the bearings of the points that we were noticing the result shows that the ship from the time of her first stopping ran through a distance of 455 meters, about.

Q. The change of heading I make 26 degrees? A. 114
That is it.

Q. Was there any change in the compass in consequence of the change of heading or had you applied the correction. if there was any such? A. It was so small it was hardly to be seen.

Q. Was that from the time of the order to reverse or from the time the order to stop was given that you ran that distance? A. From the order to stop.

Q. You had been going 23 seconds until the engine stopped? A. Yes; the whole trial lasted 2 minutes 115
and 53 seconds.

Q. By what did you judge of the distance you had advanced in coming to a stop? A. By noticing on the chart the bearing of the position where we were in the first place and the position where we were when we stopped.

Q. What was the point that you observed the bearing off? A. I haven't them here, I have only the result here. It was points on the land on both sides, and the buoys principally. 116

Q. About how far distant from the ship? A. It was varying distances from two to five miles, sufficiently distant to not give any perceptible error.

Q. But you must have had the exact distance to work it out exactly by triangulation, you must have had one base surely? A. Therefore my calculation is only approximate, being based principally upon

117 the compass. It is sure that the compass would have been little lazy while the ship was turning there and might not have indicated her exact position. Therefore on the chart the bearings of all the points that we took didn't fall exactly in the same spot. I have taken the average of the meeting of these points of bearing.

Q. Then the distance was worked out from the chart? A. Yes.

Q. By means of the angle observed you located
118 the vessel upon the chart? A. Yes; by the bearings at the beginning and the bearings at the end.

Q. When you reversed as you said full speed, what power of the engine did you reverse? A. I can't say exactly, because the number of turns increases of course as the resistance diminishes.

Q. I don't mean the actual number of turns made but the power used on the reverse; was it a 35 revolution power, or 50 revolution power? A. Oh, at least 50.

119 Q. Then you use more power reversing than in going ahead? A. That is about what we call half speed, manœuvreing speed, 35 turns. Our full speed ahead is 60 to 62 revolutions. I don't know exactly what the engine will do astern, not having tried it.

Q. Your usual full speed ahead is 62 revolutions, and that equals how much as you were then loaded? A. Seventeen knots and a half.

Q. With that load you could make seventeen and a half knots? A. Yes, sir.

120 Q. When you reversed full speed at this time do you think the engine was put astern under that power? A. No, I don't think so, because the steam pressure is not as high when we are in the channels.

Q. That is why I ask if you know about how much power of the engine, the equivalent of how many turns ahead. It makes a great difference whether she was reversed at a speed of 35 revolu-

tions or at a speed of 60 revolutions; I mean the power equivalent to that number of revolutions? A. About the full capacity of the engine in going astern. 121

Q. You haven't on your table there the amount of steam pressure, have you? A. It is on the engineer's log.

By Mr. Jones: Q. At this time was the power exerted upon the engines as great as at any time when they are getting reversed? A. No, not quite.

Q. What is the greatest number of revolutions that your steamer can make under reversed engines? A. I can't say exactly. 122

Q. Is it less than the forward motion; in other words, can you make an equal number of revolutions under a reversed engine to the number of revolutions at full speed without you are going ahead? A. I am not sure enough to answer that.

By the Court: Q. Can you give me your own estimate of how much less power you were using than 17½ knots in your experiment when you reversed full speed; that is to say, you said you thought the power you were using in reversing was little less than the 17½-knot power? A. Perhaps a fifteenth less. 123

Q. That would make little more than a knot less? A. I am speaking of horse-power now; I am not speaking of speed. The speed is not proportionate to the horse-power.

Q. Do you think when you were reversing full speed you were using a 16-knot power? A. About. 124

The paper from which the witness read the result of the experiment is offered in evidence and marked *Champagne's* Exhibit 1, June 9, 1891. (The translation is admitted also.)

By Mr. Jones: Q. When was this experiment made? A. The 21st of March of this year.

125 Q. Have you made any calculation of the distance that the *Champagne* ran between Sandy Hook and the place of collision on the morning in question? A. Yes, I made a calculation as near as I could with the using the results of this trial.

Q. Have you made a minute of that also? A. I have.

Q. Please state the result of that calculation? A. At a speed of ten knots and a half if we passed in the range of the lights at Sandy Hook at 5.20 and if
126 we stopped the engine at 5.27, there remains an interval of seven minutes. During this seven minutes, according to a calculation made, we have passed over a space of 2268.7 metres. Putting the engine full speed astern at 5 o'clock, 27 minutes and 20 seconds, supposing there is no loss of speed from the time we stopped until that time, that is, during this 20 seconds, during this 20 seconds we pass through a space of 108 meters. Between the time that I stopped the engine and it went astern full speed
127 was 20 seconds.

By the Court: Q. Do you refer to that distance between the time of giving the orders? A. That is to say, that is the distance we have gone over with the engine still, not working. I am supposing that the engine remained still between the two orders; that is my recollection of the time too as about 20 seconds.

Q. You think there was about a 20-second interval between the order to stop and the order to
128 reverse? A. That is my recollection. This is my appreciation of it, because the engineer took the time of the manoeuvres, but they only noted the minutes and not the seconds. Supposing this period of 20 seconds to be correct we have up to the hour of 5 o'clock 29 minutes, the moment of the collision, an interval of a minute and 40 seconds. I calculate that the speed that the ship had at the moment of

the collision was three knots and two-tenths. And 129
if it was ten knots and a half before the manœuvre I then arrive at 6.85 knots as the average speed during the minute and 40 seconds, that is to say the minute and 40 seconds that preceded the collision. Therefore the distance gone over during that minute and 40 seconds would be 352.4 meters. This calculation is made based upon suppositions which approach to the trials that I have made. I have great confidence in this calculation, because in placing these results on the chart I find that I am 130
brought to the exact spot of the collision.

Q. The 3½ knots at the collision is an estimate, as I understand? A. It is the result of the supposition that from ten knots and a half, the engine working astern, the diminution of the speed is proportionate to the time. This appears on the diagram here with the results of the trial.

Q. You are assuming here that the power used in going astern at the time of the collision was the full power of the engine at that time, not the 35-revolu- 131
tion power? A. The whole speed

Q. Whatever the pressure might give? A. Yes; all the pressure.

Q. Do you estimate that at about what you did at the Havre experiment, 16 knots on a full speed reversal? A. We were at a horse-power which if we were on our course would have given 16 knots, about.

By Mr. Jones: Q. In other words, the pressure in your boilers was about the same at the time you 132
made the experiment that it was at the time of the collision? A. Exactly, the same thing.

Q. What is the length of the *Champagne*? A. 153 odd meters.

Q. Can you state it exactly? A. (Referring to a memorandum.) That is to say, 503 English feet.

Q. 153.5 meters? A. Yes, sir.

133 Q. What is her breadth of beam? A. 15.77 meters; that is to say 51½ feet.

By the Court: Q. Net registry? A. 10,000 tons she displaces.

Q. Have you the net register, the displacement by our English measure? A. 10,000.

Q. Have you the net register according to the English measure? A. 2,545; gross 7,200.

By Mr. Jones: Q. What is your depth of hold? A. 13¼ meters; that is to say, 43½ feet, about.

134 Q. What is the mechanical horse-power of her engines? A. 8,000 horse-power; 75 kilograms.

Q. What is the diameter of her propeller? A. Seven meters; 23 English feet.

Q. How many blades? A. Four.

Q. What is the pitch of her propeller? A. It goes in 9½ meters and comes out 10½ meters.

By the Court: Q. It averages about 10 meters then? A. It averages about 10 meters.

By Mr. Jones: Q. That is 31 feet inwardly? A.

135 31, 33; average of 32.

The paper referred to is offered in evidence and marked *Champagne's* Exhibit 2, June 9, 1891.

Q. What is the diameter of the circle made by the *Champagne* on a hard-over helm either way at full speed? A. I don't know.

Q. I suppose you understand me to ask you to state it exactly. About what is it, if you know?

136 A. I don't know; I never have taken even an approximate measure, I have only measured it at a speed of 35 turns

Q. What is it at that speed? A. Exactly a nautical mile at a speed of 35 turns.

By the Court: Q. Turning which way, under port or starboard wheel? A. In going to port; the tiller to starboard, the ship's head going to port.

Q. She would make a shorter turn to port than to 137
starboard I suppose? A. I don't know; I think perhaps she might on account of the pitch of the screw, which is right.

Q. On a reversed screw her head turns to starboard? A. She does.

Q. Therefore on a direct motion her head must go to port? A. Naturally.

Q. She would make a circle quicker under the starboard helm? A. Yes, sir.

Q. Did you note the time in making the circle at 138
35 revolutions? A. I haven't it here and I don't recollect it. I can find that among my papers.

By Mr. Jones: Q. From your observation of the turning powers of the *Champagne*, and taking into account this tendency under a forward engine to go to port, what difference would you estimate in the circle of the ship working to starboard from the circle made by her when going to port? A. I can't say; it is impossible to say, since savants deceive themselves with the document right under their 139
eyes.

By the Court: Q. I understood you to mean a diameter of one mile in turning? A. Yes, sir.

By Mr. Jones: Q. On the morning of the collision what controlled you in maintaining a speed of ten and a half knots? A. It was prudence, because when the fog lifted there were a great number of vessels going out and coming in.

Q. You reduced your speed to that by way of precaution. Could you have reduced it any more 140
and safely navigated? A. No, in currents we can't reduce the speed below that if we wish to maintain action of the helm; outside or in still water we could reduce it more.

Q. Did you have any photograph taken of the *Champagne* after the collision? A. Yes.

141 A. Are these the photographs? A. Yes, sir; these are the ones.

The five photographs are offered in evidence and marked *Champagne's* Exhibits 3, 4, 5, 6 and 7, June 9, 1891.

CROSS-EXAMINED by Counsel for the *Lisbonense:*

By Mr. Chubb: Q. The pencil mark now shown you on the chart indicates the spot that you have
142 marked as indicating the place of the collision to the best of your recollection? A. About, yes.

Q. Will you now mark on the same chart the place where your vessel was when you first saw the *Lisbonense's* light? A. There is where we were when we burned our signal and when we saw the *Lisbonense.* (The place marked by the witness is indicated by a cross near the letter B.)

Q. Where you burned the lights is where the two lines cross? A. Yes; when the two lights were ex-
143 actly in range.

Q. What first called your attention to the *Lisbonense's* lights? A. I don't recollect.

Q. Do you recollect whether you saw it before it was reported from your lookout forward? A. I do not.

Q. What was the first thing you did after you saw the lights? A. I had the signal of the company burned.

Q. What was the thing that you personally did
144 next after seeing the lights first? A. Give the order to burn the signal of the company.

Q. What next after that? A. After that the pilot asked me to have a blue torch burned to attract the attention of the pilot boat.

Q. Mark on the chart where you were when you had that blue torch burned. A. This is my estimation as near as I could give it. (The place is indicated by the witness marking a cross in pencil near

the letter C.) But I repeat that this is more or less 145
correct. I have no point from which to be able to judge.

Q. What did you do after burning the blue light to the pilot boat? A. I occupied myself entirely with watching the burning of the *Lisbonense*.

Q. From what place on your vessel did you so occupy yourself? From the alidade which is placed forward of the middle of the bridge.

Q. And how long did you remain on the alidade? A. Until the moment which preceded immediately 146
the collision.

Q. Did you give any orders while you were at the alidade, and if so, what? A. I gave the orders that I have mentioned, to stop to go astern full speed, to the engine.

Q. Did you give them of your own motion or did the pilot first indicate them to you in any way? A. Of my own will.

Q. Every one of them? Q. Yes, both of them.

Q. Did you have any conversation with the pilot 147
during the interval? A. I did.

Q. What was it? A. I said first to the pilot, "Look out for the *Lisbonense*," as her bearing didn't change.

Q. How soon was that after the blue light was burned? A. It is absolutely impossible to say how long. All this happened in seven minutes from the time the first signal was burned until the order given to the engine.

Q. Did you have any other conversation with the 148
pilot except what you have last mentioned? A. The pilot—I don't recollect his words exactly, but from time to time he gave me to understand that we were not in danger.

Q. You said on your direct-examination that the pilot told you that he thought of giving, or was about to give two signals, two blasts of the whistle·

149 of your vessel. When was it the pilot told you that? A. Oh, this was after the collision when we were talking over the matter.

Q. An hour or two afterwards? A. I don't remember.

Q. Now, will you mark on the chart the position where your vessel was when you first became of the opinion that there was risk of collision with the *Lisbonense?* A. You have only to take the memorandum that I have given here and calculations
150 and that will show it there.

Q. Will you mark it on the chart, if you please? A. I have stated according to my idea already about what I thought the distance we had passed over from Sandy Hook down to the place of collision as 2,729 meters. According to this calculation, where I am marking now is the place of collision—right at the intersection of the two channels. I have made a cross where we were approximately at the time; according to the calculation here is where I had the
151 conviction there was going to be a collision. (The spot is indicated by a pencil cross near the letter D.)

By the Court: Q. Was that before or after you gave the order to stop? A. At the same time.

By Mr. Chubb: Q. Then you thought there was no danger of collision at any time before you gave the order to stop your engine. Is that correct; A. Yes; there was danger from the time we saw that the two ships were holding the courses that
152 were going to cross each other, but there was no imminent danger until this moment.

Q. Now, will you mark on the chart where you were when you saw that the courses of the vessels were crossing so as to involve risk? A. In order to reply to this, I want to be well understood in order that there should be no error. From the moment that aboard our ship we saw the *Lisbonense*

there was presumable danger of collision, since on 153
account of the dangers of the locality where I was I was unable to manœuvre to pass astern of the *Lisbonense*, but at the first part there was only a presumption of danger since we did not know the speed of the *Lisbonense*. Little by little as we watched the bearing of the *Lisbonense* we saw that the danger was more probable. And as we saw that the distance between the two ships grew less and less without the *Lisbonense* changing her course or diminishing her speed we saw that the danger 154
was becoming more imminent. During the whole distance that our ship passed over from Sandy Hook down to the place where I stopped there was no real danger of collision. During all that time the *Lisbonense* could have stopped, could have gone astern, could have gone to starboard or to port, her draft of water allowed her to go over all the dangers. One thing could have embarrassed the vessel, that is, if I had stopped too soon, because then I would have prevented her from com- 155
ing-to on the port hand.

Q. When you first saw there was presumable danger of collision with the *Lisbonense* which of the rules of navigation were you then under? A. Under the rule which is called Particular Circumstances, special circumstances, which obliges you to go outside of the usual rules. Without those special circumstances if we had been outside and plenty of room the manœuvre is so simple that there is no need of mentioning it. 156

Q. Will you give the numbers of the rules you have mentioned by their description or titles? A. Article 23.

Q. And the other one? A. I only spoke of one. I referred to Article 23 which refers to cases which render the usual rules not to apply.

Q. Then you think that Article 23 was the only

157 article of those regulations which governed you from the time you first saw the *Lisbonense* until the collision? A. No, there is another one.

Q. Which is it? A. There is another one which says, that when a collision is imminent each one of the ships should slow down, or stop, or go astern.

Q. What is the number of that? A. It is No. 18.

Q. Then you think that those two rules alone governed the situation from the time of sighting the *Lisbonense* until the collision? A. That is
158 what appears to me. If there are any others I should be very glad to know them.

Q. Were you of that opinion when you heard the signal of the *Lisbonense's* whistle? A. Without doubt the signal of the *Lisbonense* signified "I remain on the right hand side of the channel." That doesn't mean at all, "I am not going to slow down, "I am not going to stop" or "I am not going astern."

Q. Were you of the same opinion when you blew
159 your answer to the *Lisbonense's* signal? A. Yes; because I don't know any rule that shows that a blast of the whistle indicates that I am slowing down, I am stopping or I am going astern. The signals by whistle indicate alone the way in which you are going to manœuvre by your tiller or helm. I know of no signals which indicate the manœuvre of the engine by steam except the three blasts which indicate "I am going full speed astern."

Q. What information or instruction did you in-
160 tend the master of the *Lisbonense* to gather from your answer of one whistle to his one whistle?

Objected to, that that is a question of law. Objection sustained. Respondent excepts.

Q What duty did you understand that your giving the signal imposed upon you?

Objected to on the same ground. Objection overruled.

A. Do you want to know my present opinion or 161
my opinion at the time?

Q. Your opinion at the time you ordered it? A. I have understood and I thought in my first report that we were the ones that commenced by giving the first whistle.

Q. What duty did you understand that your giving the signal imposed upon you? A. I supposed that imposed the duty of keeping the right side of the channel.

Q. Are you of the same opinion to day? A. Ex- 162
actly.

Recess.

By Mr. Chubb: Q. Will you kindly mark on the chart the position where you were when you gave this signal of one whistle in answer to the *Lisbonense's* one whistle? A. I think I have already answered that question; we were at the spot marked with pencil near the letter C; about there; I can't say just, but that was about it. 163

Q. I understood you to say, on your direct-examination, that it was impossible for your vessel to change your course because of your great draft. Do you mean by that that had your vessel had a draft of say 15 feet that you might have considered yourself under the operation of rules other than those you have already stated? A. I do.

Q. Which other article would you have been under? A. I don't know the article by number, but I should have acted as if I was outside. With 15 164
feet I could have taken the south channel.

Q. Kindly look at the memorandum you used on the prior occasion and let us know the number of the rule you refer to? A. (Referring to the rules.) Article 16.

Q. Then I understood you that the fact of your great draft, in your judgment, took the situation

165 out of Article 16 and brought it under Article 23; is that correct? A. Yes.

Q. Did you expect the other vessel to know that fact, namely, that in your judgment your great draft took the case from Article 16 to Article 23? A. Doubtless, since that is what happens every day in the narrow channels. It is of daily usage that the small ship gives way to the larger ship in passes of that sort, and also that the ship that is coming up against the stream should give way to the vessel that
166 is going down stream; going with the current.

Q. How did you expect the master of the other vessel was to know that this draft of yours was such as to take the case from the 16th to the 23d article? A. There are many reasons for this.

Q. State them all? A. That is to say, our signal which was made at Sandy Hook. I can admit that the captain of the *Lisbonense* didn't know the signal of the French line, but the pilot certainly knew it, because it is written in all the publications in New
167 York and the pilot sees them often. Second, on account of the clearness of the atmosphere the captain must have seen that this was a large ship covered with lights. Third, our lights, as required by law, are electric, and such as large ships possess. And a presumption which ought to override all the others is that we were going down by the main channel instead of another which was to be taken by medium sized ships.

Q. You have named four, are those all? A. I don't
168 see at present any others.

Q. Therefore you mean that assuming that those in charge of the other vessel knew that your vessel was a vessel of La Compagnie Generale Transatlantique? A. No. I couldn't manœuvre otherwise than I did, in the first place.

Mr. Jones: I don't think the witness understood the question.

The Witness: If I have been asked what opinion 169
was in the mind of the other captain, I gave this reason with the others.

Q. Does not a possible misunderstanding of the rule governing the situation of two vessels approaching one another constitute a danger? A. Always. And that is the reason why the rules in regard to the collision state such a position, why you should take precautions and not be obstinate in your first idea.

Q. If the captain of the steamer whose lights you 170
then saw did not know that your draft was such as to have the effect you claim for it did not that thereby cause danger of collision? A. I think that is a proof of incapacity on his part, and especially of the pilot who had charge of the ship, if he didn't know that he had to do with a ship of great draft. This was permitted when the two ships were at a great distance from each other, but when they approached each other he should not have made the error as to the dimensions of our ship. 171

Q. You now seem to claim, then, that at some time before the collision those in charge of the *Lisbonense* should have known that your draft was such as to prevent you from changing your course. Is it what you mean?

Objected to, as not a correct statement of the testimony.

A. That is what I meant to say after having said 172
there were signs of incapacity because they didn't know sooner. If by strict letter of the law you admit that the captain didn't know, didn't recognize the signal of our company, yet the pilot should have known. Then, when we got nearer together he could see the full extent of our ship; unless he had no eyes to see he must have seen.

Q. You think, then, that the pilot ought to have

173 known it was your vessel, *La Champagne*, that showed lights off the point of the Hook? A. The pilots are generally very well posted on those questions. My pilot told me what line the ship belonged to that we were in contact with, and yet she made us no signal.

Q. You think, then, that the pilot ought to have known it was your vessel, *La Champagne*, that showed lights off the point of the Hook? A. I think that most of the pilots know the signal of our com-
174 pany, and they know what steamer ought to go out a certain day.

Counsel for the *Lisbonense* objects to the answer, and asks to have it stricken out, and that the witness be instructed to answer yes or no. Motion denied.

Q. If as a matter of fact you had known that our pilot did not know of your great draft would you then have done differently to what you did do? A.
175 I don't know what are the usages of ports in America, but it seems to me I am being called upon to answer more as an expert than as a captain. I have done what I did, and under other circumstances I would probably have acted otherwise.

Q. Is that the only answer you can give to my question. A. Let me be given something precise.

Q. Did I understand you to say that you saw the red sector of the Sandy Hook Light before the collision? A. After; immediately after.

176 Q. You have marked the place of collision as being below, that is to say, to the southward and eastward of the axis of the main channel. Did you take any bearings to guide you in fixing that point rather than a place to the northward of the axis of the channel? A. I didn't take exact bearings, but the lighted buoy of Gedney Channel remained a little on our port hand.

373

ALBERT DAFFRAIN, being duly sworn and examined (through the interpreter) as a witness for *La Champagne*, testifies:

By Mr. Jones: Q. You are an apprentice boy on board of the steamship *La Champagne?* A. Yes.

Q. And you were such when the collision between *La Champagne* and the *Lisbonense* occurred? A. Yes.

Q. You saw the collision? A. I did.

374 Q. Where were you stationed? A. On the top-gallant forecastle.

Q. Anywhere near the second captain, Mr. Dupont? A. Yes.

Q. Do you remember Mr. Dupont saying, "Full speed, Captain"?

Objected to as leading.

Q. Do you remember that Mr. Dupont said anything when the *Lisbonense* was near by the *Champagne?*

375 A. I do recollect very well.

Q. Do you remember that he called to any one on the *Lisbonense?* A. Yes; when the *Lisbonense* got about three-quarters by Mr. Dupont cried, "Full speed;" and then he leaned over to see whether she was going to hit.

CROSS-EXAMINED by Counsel for the *Lisbonense:*

By Mr. Chubb: Q. How old are you? A. Fifteen years.

376 Q. How long have you been at sea? A. Since I am thirteen.

Q. Do you understand English? A. I do not.

Q. What words did you hear the second captain call out? A. Full speed. And then on board the English ship they answered, "All right."

Q. Did you know what those two words meant at that time? A. Nearly about.

173 known it was your vessel, *La Champagne*, that showed lights off the point of the Hook? A. The pilots are generally very well posted on those questions. My pilot told me what line the ship belonged to that we were in contact with, and yet she made us no signal.

Q. You think, then, that the pilot ought to have known it was your vessel, *La Champagne*, that showed lights off the point of the Hook? A. I think that most of the pilots know the signal of our com-
174 pany, and they know what steamer ought to go out a certain day.

Counsel for the *Lisbonense* objects to the answer, and asks to have it stricken out, and that the witness be instructed to answer yes or no. Motion denied.

Q. If as a matter of fact you had known that our pilot did not know of your great draft would you then have done differently to what you did do? A.
175 I don't know what are the usages of ports in America, but it seems to me I am being called upon to answer more as an expert than as a captain. I have done what I did, and under other circumstances I would probably have acted otherwise.

Q. Is that the only answer you can give to my question. A. Let me be given something precise.

Q. Did I understand you to say that you saw the red sector of the Sandy Hook Light before the collision? A. After; immediately after.

176 Q. You have marked the place of collision as being below, that is to say, to the southward and eastward of the axis of the main channel. Did you take any bearings to guide you in fixing that point rather than a place to the northward of the axis of the channel? A. I didn't take exact bearings, but the lighted buoy of Gedney Channel remained a little on our port hand.

Q. Was that before the collision? A. Several minutes before the collision, because we remained on the right-hand side, that is to say, to the south of the axis of the channel. 177

Q. When you first looked at the bearing of the *Lisbonense* what bearing did you notice? A. The first bearing I took was 23 degrees from our own course, and it was after that we manœuvred to take the right-hand side of the channel.

Q. When did you next take the bearing? A. I didn't lose it after that. 178

Q. Were you all the time noticing the bearing? A. Continually.

Q. What was the bearing at the time you blew your three blasts? A Exactly the same. That is to say, at the time I gave the order to stop before giving the three blasts of the whistle it seemed to me that the angle increased a little as if there was hesitation on board the *Lisbonense*, but I have already said I can't affirm that.

Q. But from the time you first took the bearing until the three whistles the angle continued at 23 degrees through the instrument? A. Exactly. 179

Q. You estimated, I believe, the interval between your order to stop and to back as about twenty seconds? A. About.

Q. Had you so wished could you not have made a shorter interval without endangering the machinery of your vessel? A. Perfectly. I could have reversed the engine at first as soon as I had it stopped, instantly. I have already explained that if I didn't order the engine going astern sooner it was in order not to prevent the *Lisbonense* to come-to to port if she wished to. 180

Q. To come-to to whose port? A. To come-to on her port hand if she wished to.

Q. When you ordered the engine stopped, which end of you did you expect the *Lisbonense* to go by?

181 A. I stopped as a measure of precaution in order to see what the *Lisbonense* was going to do. It was after the twenty seconds of being stopped that I saw the bearings change. As the bearing didn't change and I saw continually the white light and the red light of the *Lisbonense*, as I didn't see any manœuvre at all on the part of the *Lisbonense*, I thought that she was persisting in crossing ahead of us and it was then I gave the order to go astern.

Q. Did you or your pilot give any order to the 182 helm from the time of the first whistle of the *Lisbonense* to the collision? A. Yes. As I have just said, we gave the order to steer a little to the right of the axis of the channel.

Q. What were the words of the order? A. I don't know, but probably the pilot said "Port," I repeated it, and the officer repeated "Tribord un peu"—"Port a little."

Q. Do you recollect when that was with reference to anything you have mentioned as to your vessel's 183 movements? A. After the exchange of the first blast of the whistle.

Q. How much did your vessel change under that? A. I can't say exactly, but I think it must have been three or four degrees; but our course was a little more than that, probably on account of the current, that took us crosswise.

By the Court: Q. You mean the current sets you crosswise to the southward? A. I do; and the wind as well.

184 By Mr. Chubb: Q. After that order was given what was the next order to the helm? A. We kept our course, we kept that same course. If we gave any orders it was simply to keep her in that course without changing as near as possible.

A. In other words, after swinging two or three degrees you steadied her on that course? A. Yes.

Q. Have you the translations of those experi-

ments that you made at Havre as to the stopping? 185
A. Yes.

(The witness hands the translation to counsel.)

Q. Are you able to ascertain from any book the steam pressure carried at the time of the collision and at the time you made these experiments? A. You can find that on the engineer's log; I can say very nearly that the pressure must have been about 7 kilos. 800 Grams.

Counsel for the *Champagne* asks counsel for the *Lisbonense* if he desires the engineer's log. 186
Counsel for the *Lisbonense* states that he has not called for the log, but will do so if he wishes it.

Q. You are familiar with the chart which has been used on this examination? A. Yes.

Q. You had seen and examined it before this collision? A. I examine this chart every time we come in or go out, or a chart on another scale.

Q. You had no reason to doubt it was accurate as 187
to the parts near by the collision? A. No. These charts were corrected after the passes were dredged; at the present time the buoys are not correct there because they were changed last month.

Q. You assume it correctly states the bottom at or near the place of collision? A. I don't guarantee anything at all. I never pass over waters where I should not go; when I see 24 feet put down on the chart I don't go there drawing 25 feet of water.

Q. In other words, you assume it is correct? A. 188
As everything that comes out of the Hydrographic Office in Washington I suppose it to be correct.

REDIRECT by Counsel for *La Champagne:*

By Mr. Jones: Q. How far do you think you were from the *Lisbonense* when you stopped your engines? A. My impression is it was

189 about 600 meters—that the ships were separated by a distance of about 600 meters. But by the calculation that I have made that can be verified. I think, according to my calculation, it was a little more than that.

Q. On this chart which has been used here there are depths marked greater than those of the draft of your ship. Will you explain to the Court why you could not have taken the south channel or have gone to starboard? A. If you follow the line of
190 the south channel you will see that in the vicinity of the place of the collision there are banks of sand. In the south channel, near the place of the collision, there are places where there is plenty of water, but farther down there is not water enough. You have to pass over shallows of 21 feet. The south channel is nearly always prohibited for *La Champagne.*

Q. You have made a diagram, have you not, to show the effect, or rather the result of your turning your course to starboard after sighting the *Lisbon-*
191 *ense?*

Objected to as incompetent on the redirect, that it should have been gone into on the examination-in-chief. Objection overruled. Counsel for the *Lisbonense* excepts.

A. I have drawn up a document showing that—it is hardly a diagram. The word is a little too pompous for what I have made.

Q. (Handing witness a paper.) Is this the draw-
192 ing you have made? A Yes.

By the Court: Q. What does that illustrate? A. This has been taken off from the chart on transparent paper. I wish to show by this that in the circle in which my ship would have worked it would have been impossible to manœuvre. I can't go out the south channel, it doesn't contain water enough for me to go out. It was impossible for me to turn

round in this bowl to avoid a ship that was coming 193
up, because if I followed the red line as indicated here, I should not be able to come back into the main channel, but would bring up on that bank, the diameter of the circle in which I could turn being a mile. Suppose the *Lisbonense* came up and I came to on the starboard side; I will suppose that I saw Buoy No. 3, that is to say, at the moment when I came-to to starboard without fearing the shallows of Sandy Hook; I will suppose that when I put my helm to port the ship comes to starboard immediately— 194
which is not exact, because the ship generally goes along a little on her course before changing. Under all these good conditions I should follow the red line as indicated here until the *Lisbonense* would be clear. Then the *Lisbonense* coming up, I would shift my helm over, and I would suppose that the effect of the putting the helm over the other way was immediate. Then I follow the second red line, and to come back again into the channel, I follow the last arc as described. But, unfortunately, I present myself com- 195
ing right down in the channel of Gedney and bringing up on this shoal as indicated. If I turn very quick, I bring up on this shoal; if I turn slowly, I bring on the other shoal. In reality, as the ship doesn't mind her help until she has gone a certain distance, I would actually follow the blue line as indicated here or something approaching it. When I change the helm, the ship goes ahead on a straight line and I come to bring up surely on the southern bank. And this effect would be much more notice- 196
able if you take into account the current and wind. All this requires a long explanation, but in my mind and in the pilot's mind, we did not have to go into that, we saw it at once.

Counsel for *La Champagne* offers in evidence the diagram to which the witness has been re-

197 ferring, stating that he offers no paper connected with it.

It is marked *La Champagne's* Exhibit No. 8, June 9, 1891.

HENRY A. DE VERE, being duly sworn and examined as a witness for *La Champagne*, testifies:

198 By Mr. Jones: Q. You are a New York and Sandy Hook pilot, I believe? A. Yes, sir.

Q. And you were pilot of *La Champagne* at the time of the collision with the *Lisbonense?* A. Yes, sir.

Q. Where was *La Champagne* when you first discovered the light which afterwards turned out to be upon the *Lisbonense?* A. Just abreast of the point of the Hook—Sandy Hook.

Q. What channel had you taken, and what channel
199 were you pursuing out to sea? A. Had taken the main channel, main or ship channel to the Southwest Spit, around the Southwest Spit took what they call the Bayside Cut out past the Hook intending to enter Gedney's.

Q. Do you remember any signals having been given on *La Champagne* at or about the time you passed Sandy Hook? A. She burned the company's signal, and after that the blue light, the pilot's signal.

200 Q. Was this before or after you discovered the light on the *Lisbonense?* A I saw the light first——

Q. No; the signals, were they burned before or after you discovered the light of the *Lisbonense?* A. Burned after I discovered the lights.

Q. Did you see the light of the *Lisbonense* before you burned the signal to the pilot boat? A. Yes.

Q. How long after you burned the signals to the

Sandy Hook station was it that you burned the 201
signal for the pilot boat? A. Not over a minute.

Q. Was that signal answered? A. Yes, sir.

Q. How did the pilot boat bear from *La Champagne?* About a point on the starboard bow.

Q. How did the light on the *Lisbonense* bear from *La Champagne?* A. About two points and a quarter on the starboard bow.

Q. What was the speed of *La Champagne* at that time? A. When we first saw the lights?

Q. Yes. A. Half-speed. 202

Q. Why did you take the main channel? A. On account of the ship's heavy draught and the strong ebb tide.

Q. How was the wind and what was its force? A. Strong northwest wind.

Q. What is the course or sweep of the tide at Sandy Hook? A. At each quarter of the tide there is a different sweep to it. The first quarter of the ebb runs about northeast, the second quarter east, the third quarter southeast or nearly so. 203

Q. You have to maintain some speed with a large vessel, do you not, in order to steer with that tide?

By the Court: Q. Which quarter of the ebb were you in? A. In about two hours ebb; the tide was running about one-third ebb.

Q. That is the second quarter? A. Yes, sir.

Q. The tide was running east then? A. About east southeast.

By Mr. Jones: Q. It is necessary, is it not, to maintain some speed in order to steer with that 204
tide? A. Yes, sir.

Q. In your judgment, what is the lowest rate of speed that you can maintain that is prudent to navigate in that tide going out in the main channel with a large ship like *La Champagne?* A. Seven knots.

Q. You were running, when you saw the *Lisbonense*, about how much? A. We were running

205 at half speed, and the captain states about ten knots when we first saw her.

Q. After you discovered the light of what turned out to be the *Lisbonense*, what did you do, if anything? A. After I discovered the light I reported it, and two or three minutes afterwards I ordered—the captain spoke about being cautious, and when he spoke about being cautious—I ordered him to slow, ordered the engine to slow.

Q. Had you received any signal at that time from
206 the *Lisbonense?* A. Not at that time.

Q. How much abatement of speed do you think the slowing of the engine that you ordered made? A. I should judge the ship was going about seven knots through the water.

Q. Upon which side of the channel did you proceed? A. We were on the southerly side of the channel.

Q. How far off do you estimate that the *Lisbonense* was when you first saw her? A. About two
207 miles and a half.

Q. Where do you think she was? A. She was about half way of the south channel; half way between the Scotland Lightship and the intersection of the main channel.

Q. Did you afterward receive any signal from her? A. One whistle. She blowed one whistle, signifying that she wanted to cross my bow and pass me on the port hand.

Q. How far off was she when you received that
208 signal? A. About a mile.

Q. Did you acknowledge the signal in any way? A. I acknowledge the signal, which is courtesy.

Q. What did you do—what signal did you give? A. I blowed one whistle in return, signifying that I understood what he was going to do.

Q. Was there anything that you could have done

except to keep on the right hand of the channel, in 209
the situation that you were then? A. No sir.

Q. What did you do after that; before the collision? A. Immediately ordered the engine stopped and reversed full speed, and blowed three whistles.

Q. How far off was the *Lisbonense* at that time, A. I should judge about between six or eight hundred yards, say seven hundred yards, as near as I could judge, it being dark.

Q. What did the *Lisbonense* do, if anything? A. As near as I could see she kept right on her course 210
and kept going all the time, never paid any heed to our signals.

Q. Did you see or hear anything of her after the collision? A. I saw her for about two minutes I suppose after the collision, and then she went out of sight in the darkness.

Q. Did you hear anything further? A. No, sir.

Q. Why did you maintain you way through the main channel towards Gedney's Channel after you had sighted the *Lisbonense?* A. The draft of the 211
ship compelled me to go through that channel. I couldn't possibly go over the south bar because there isn't water enough there for that ship at that time of the tide.

Q. Was there anything to prevent you from stopping in the channel? A. If I stopped the ship we would lose control of her, and she would sweep on to the bank that is at the southerly side of Gedney's.

Q. How long have you been a pilot? A. Ten years
on the 25th of last January. 212

Q. Assuming it to be a fact that the *Lisbonense* drew but 21 feet of water, what was her proper course after she had discovered this large steamer which you were navigating; should she have continued up the Swash Channel?

Objected to as leading.

The Court: Leave out the last.

213 A. In my judgment it would have been proper for the *Lisbonense* to put his wheel to starboard, that is, to put his helm to starboard and go under *La Champagne's* stern. Where the *Lisbonense* was she had plenty of water to manœuvre and could have made a complete circle and not been in any danger.

Q. In your practical experience as a pilot and in practical navigation going out of the harbor of New York, please state whether or not a vessel of the size and draft of *La Champagne*, going with a strong
214 ebb tide and with a northwest wind of considerable force, has or has not the right of way?

Objected to, that the opinion of the witness on that point is not competent evidence.

The Court: If it is only to ask what is the course practiced as a fact I allow the question.

Question withdrawn.

Q. What is the practice among pilots when pilot-
215 ing a large vessel like *La Champagne*, going out the main channel with a strong north wind and strong ebb tide? A. The practice of the pilots? It is always to give the big ship the right of way.

Q. As matter of fact under those circumstances you considered you had the right of way on the morning in question? A. Yes, sir.

CROSS-EXAMINED by Counsel for the *Lisbonense:*

By Mr. Chubb: Q. Will you tell us what orders
216 you gave personally after you heard the *Lisbonense's* signal? A. After she blowed her whistle? Yes, sir; I gave the order to blow one whistle.

Q. What others? A. Stop and reverse and blow three whistles.

Q. Are those all? A. At that time; yes, sir.

Q. All the orders between the time of the *Lisbonense's* whistle and the collision? A. I gave the

order to ring the engine up again to make her go faster and blowed three whistles again, and that is all. 217

Q. Have you now stated all? A. Yes, sir.

Q. No orders to the helm during that interval? A. No, sir. The helm was amidship.

Q. And continued so during that interval? A. Yes, sir.

Q. And had been for some time? A. Yes, sir.

Q. From the time of the sighting of the *Lisbonense*? A. No, sir. 218

Q. From what point? A. When we sighted the *Lisbonense* and when we were getting out close to her I ported a little to—as we call it—"shave" along the southerly side of the channel and then steadied her, and about that time they blowed the whistle.

Q. And when was this order that you gave to slow, after blowing the whistle? A. I gave the order to slow before the whistle was blown.

Q. Before the signal whistle was blown? A. Yes, sir. 219

Q. So she was then under what a tug would call a "slow bell?" A. Yes.

Q. And continued until it was changed by the order to stop and the order to reverse on top of that? A. Yes, sir.

Q. What was your reason—I didn't quite gather—for returning the signal of the *Lisbonense*? A. Courtesy. It is the courtesy of captains of steamships and steamboats around this harbor always to answer a signal given by another ship to let them know that you understand what they are doing. 220

Q. And that is why you answered him and for no other reason? A. Yes, sir.

Q. And you gave no order because of having answered it? A. No, sir.

Q. I understood you to say on your direct exam-

221 ination that there was nothing that you could have done except keep on the south side of the channel. Do you mean by that you couldn't have altered your heading as much as a point or half a point? A. In which way?

Q. Either way? A. I couldn't alter it to the southward.

Q. Why not? A. I would go ashore.

Q. At all times before the collision? A. Yes; before I would recover myself, before the ship would
222 recover herself.

Q. Where would the shore on which you would have grounded been, on the quarter or abeam of you? A. When we would have gone aground it would have been ahead of us.

Q. Then it would have been a place to the eastward of the point of collision that you would have grounded under such circumstances? A. About southeast of the point of collision.

Q. You said if you stopped your ship you would
223 have lost control of her? A. Yes, sir.

Q. Do you mean if you had given your order to reverse your engines thirty seconds earlier than you did you would have lost control of your vessel? A. No, sir; not thirty seconds.

Q. Do you mean you would have lost control of your vessel before that she should have lost her forward motion? A. She wouldn't have lost her forward motion; the tide was running ebb.

Q. As long as she carried her forward motion you
224 would not have lost control of her, would you? A. I would.

Q. She could have had her forward motion and still been not under control? A. She wouldn't be going straight ahead; she would be going ahead, as it were, but still going sideways, going about four points to the leeward of where she was heading.

Q. And you would consider her, then, to be not 225
under control? A. Not under control.

Q. Did you undertake to testify that nothing but heavy draught vessels went down the main channel of this port? A. Very seldom anything else but heavy draught vessels go down.

Q. Is that your testimony? A. Yes, sir.

Q. Have you never taken out anything but heavy draught vessels down that channel? A. No, sir.

Q. Have you never seen anybody else taking them out? A. Not once in five years. 226

Q. Nor coming in either? A. Unless the Swash Channel was filled with vessels and they went around there to avoid colliding with vessels in the Swash.

Q. What is the practice about vessels coming into port whose draft allows them to take the Swash Channel? A. The practice in what respect?

Q. The custom—vessels coming into port whose draught permits of it; do they generally take the Swash or main channel? A. It is dependent on the 227
way from which they come. If the vessel comes from the southward they come up the Swash if the draught allows. From the eastward it don't make any difference what the draught is, they come up Gedney's and go up the Swash.

Q. When you first saw the *Lisbonense* where did you think she was coming from? A. From the southward.

Q. From the moment you first saw her you anticipated she would try for the Swash Channel? A. 228
Yes, sir.

Q. And you saw no reason to change your conclusion up to the time of the collision? A. I could not.

Q. You said that in your judgment it was proper for the *Lisbonense* to starboard and go under your vessel's stern? Yes, sir.

Q. Do you mean to say you thought it proper for

229 her to do that after having given a signal of one blast? A. But she should have done it before blowing that signal

Q. Then your testimony is that she should have given a different signal from the one she did give. A. Yes, sir.

Q. Then why did you accept that signal when it was given? A. For courtesy's sake, which is the practice of the port.

Q. Supposing you had been discourteous on this
230 occasion for reasons of your own, what would you have done?

Objected to. Objection sustained.

Q. Do you mean to testify that a vessel of the character of *La Champagne* cannot shift her heading as much as half a point at any time from the time of passing Sandy Hook Light to the time of making the buoys on the turn at Gedney's Channel? A. I didn't say that. She can in certain parts of it,
231 before she gets out between the buoys; there is deep water outside of Sandy Hook, as you see by the chart, where she can go; when she gets further along she can't

Q. Assuming she keeps the centre of the channel, hasn't she at all times a little liberty about altering her heading? A. If she is in the middle of the channel; yes.

Q. She can change a little at any point? A. A little in the middle of the channel.

232 Q. How will you say—as much as a point? A. No, sir; not over a quarter of a point.

Q. Not over a quarter of a point even for a short space, say for her length? A. No, sir.

Q. And then steady and return to her course? A. You couldn't turn her back to her course in her own length.

Q. Couldn't you, without turning back to her

exact course, get in a position to go out the channel 233
you intended to go? A. Certainly in a quarter of a point you can, and I shifted a quarter of a point.

Q. How wide is that channel in its narrowest part? A. About 2,000 feet.

Q. And your vessel was about fifty-one feet broad? A. Yes, sir.

Q. Which is its narrowest part? A. The narrowest part of the channel is where Bayside Cut goes into Gedney's Channel.

Q. You hadn't reached that at the time of the col- 234
lision? A. Right close to it.

Q. You didn't reach it that day? A. No, sir.

Q. You mentioned that you gave certain orders. Did you give them directly to the persons to obey them, or did they travel through somebody else's hand? A. Through an interpretor.

Q. Who was that? A. I don't know exactly who it was; one of the officers of the ship, but the one I couldn't point out.

Q. Was it the officer who appeared to be in com 235
mand? A. No, sir.

Q. Did he translate what you said to the officers in command? A. No, sir. The officer in command was busy getting the bearings of the other steamer.

Q. Then these orders were given from you to some other officer who gave them to the persons who were to obey them? A. Yes, sir.

Q. Were any orders given except those you have already testified as having given yourself? A No, sir; if they were they were given in another lan- 236
guage I couldn't understand.

Q. You didn't see them; you are not conscious of any having been given? A. No, sir.

Q. Where were you standing all this time? A. On the starboard side of the bridge.

Q. Who else was there? A. The captain, two of

237 the officers, a quartermaster at the wheel and another quartermaster.

Q. And the alidade is on the bridge too? A. Yes, sir; on the bridge rail.

Q. You saw the *Lisbonense* before she was reported on your vessel? A. Yes, sir.

Q. And you then took her to be a steamer? A. Yes, sir.

Q. You saw both lights? A. Yes, sir.

Q. How do you describe the wind that morning?

238 A. The wind was about northwest.

Q. And how as to its velocity? A. Strong; a strong breeze.

Q. Do you know its velocity in knots? A. No, sir.

RE-DIRECT by Counsel for *La Champagne:*

By Mr. Jones: Q. Youwere asked by counsel why you accepted the *Lisbonense's* signal. Do I understand you to say that you did accept the signal?

239 Objected to, that a cross-examination of his own witness is not proper.

The Court: I allow the question, because it was counsel's statement, not the witness'.

A. I didn't accept the signal, I understood the signal.

Q. Are you familiar with all the signals of the different lines of steamers going out of New York?

240 Objected to. Objection sustained.

A. Most of them.

Q. Do you consider it part of your business to be familiar with the signals of the various steamship lines, part of your business as pilot?

Objected to as incompetent. Objection sustained.

Adjourned to Friday morning, June 12, 1891, 10 o'clock.

241

NEW YORK, June 10, 1891.

The following witnesses were examined during the absence of the Court:

NICOLAS BLANQUIE, being duly sworn and examined (through the interpreter) as witness for *La Champagne*, testifies:

By Mr. Jones: Q. You were first lieuntenant of *La Champagne* at the time of the collision with the 242
Lisbonense, I believe? A. I was.

Q. Where were you stationed when the ship hove anchor and proceeded down the main channel towards sea? A. At the time that she got underweigh I was aft, but when she got down below and before the collison I was forward on the bridge, and I left it in a few minutes.

Q. Where was the ship when you went on the bridge? A. When I went on the bridge we had just burned our signal to Sandy Hook, and we saw 243
the red and white light of the other steamer.

Q. How was the weather at that time? A. The night was dark, without fog: we saw the lights very distinctly.

Q. How was the wind? A. From the north, a fine breeze.

Q. Do you know how the tide was? A. It was about half ebb tide.

Q. How did the red light of the steamer that afterwards turned out to be the *Lisbonense* bear 244
from *La Champagne?* A. I can tell you only approximately; I think about twenty-five degrees on the starboard hand.

Q. What course were you following at the time? A. We were going out of the main channel and were following the proper course to go out that channel.

Q. Did you remain on the bridge until the col-

245 lision? A. At the time they burned the signal for Sandy Hook I was on the bridge; I went down to write a letter to the Consul announcing that we had passed Sandy Hook, and I went back again upon the bridge a few moments before the collision.

Q. State in your way what you saw and what you heard when you came on the bridge the second time? A. When I went up on the bridge the second time the *Lisbonense* was nearer of course than when we made the signal; her bearing was about
246 the same; I didn't follow her by the alidade, but it was about the same as before. About 30 seconds after I got on the bridge the commandant ordered the engine stopped; at the same time it seemed to me—I don't wish to affirm it positively—that the bearing of the *Lisbonense* increased a little.

Q. That is to say, you mean it widened out on your starboard hand? A. Yes, but it was only for an instant. I don't wish to affirm this, but it appeared to me to be so. The engine was stopped;
247 then a few instants after the engine was made to go astern at the greatest speed possible, and in a few instants after the collision took place.

Q. Did you hear anything of a cry on board your ship to the *Lisbonense* to go full speed? A. No; it was too far away for me to. I didn't hear anything from the bridge shouted to the *Lisbonense*.

Q. Did you see the course of the *Lisbonense* at the time of the collision? A. Approximately, yes; I can't be very precise about it. At the moment of
248 the collision the two courses of the ships formed a right angle.

Q. Did you see or hear anything of the *Lisbonense* after the collision? A. No; she vanished in the night, and we didn't see her afterwards, we saw her no more.

Did you hear anything of her? A. Absolutely nothing. We hunted for her.

Q. Did you know upon which side of the channel 249
the collision took place? A. I can't say exactly, but it was where the channels crossed each other—the Swash and the main channel.

Q. Do you know which side of the channel your ship had been following before the collision? A. Certainly I do. We tried to hold the right-hand side of the channel as much as possible.

CROSS-EXAMINED by Counsel for the *Lisbonense:*

By Mr. Chubb: Q. Are you what is called the 250
second captain of your vessel? A. I am not; the third.

Q. What is your exact title in French? A. I am called "premier lieutenant."

Q. Are you an officer of the navy in France? A. No, I am not; but I am a shipmaster in the merchant marine.

Q. You say you were aft for some time. On what part of the vessel were you then? A. This was at
the time of getting under way at four o'clock in the 251
morning I referred to then.

Q. When you speak of going on the bridge do you mean on the main bridge of the vessel? A. Yes, where the commandant and other officers stand with the pilot.

Q. When you got on that bridge whom did you find there? A. The captain, the pilot, second and third lieutenants; several sailors, lookouts, on each side of the ship.

Q. Did you steer a compass course or according to 252
the pilot's orders, to the Southwest Spit? A. By the pilot's, under the orders of the captain.

Q. When you turned the Southwest Spit buoy do you happen to know what your compass course then was? A. No; I didn't look at it.

Q. Did you leave the bridge as soon as you had burned your company's signal? A. Yes.

Q. How far off was the light of the *Lisbonense* at the time you left the bridge? A. I can't judge that.

253 Q. Tell us your best recollection about it? A. I might be totally deceived in regard to it.

Q. What is your best recollection? A. I am unable to judge. If I knew how far Sandy Hook was and just where the *Lisbonense* was I might be able to make a calculation, but I should perhaps deceive myself then.

Q. Do you think it was as much as five miles off? A. No, I don't think it was as much as that; I can't say.

254 Q. Was it over a mile in your judgment? A. I repeat I am not able to say exactly.

Q. When you came on the bridge again how far off was the *Lisbonense* then, in your judgment? A. When I went up on the bridge again, which was a minute or two before the collision, she might have been 1,500 or 1,800 hundred meters off.

Q. You heard the order given to stop the engines? A. I did.

Q. And you heard the order to reverse? A. I
255 did.

Q. What interval of time was there between these two orders? A. Between 25 or 30 seconds. There were three orders—the order to stop, to go astern, and the order to go astern as full speed as possible.

Q. Did you hear any whistles from the vessel about that time? A. Yes; when we went astern full speed they gave three blasts of the whistle.

Q. At the time of which of the three orders to the
256 engine which you have mentioned were the three blasts given? A. The first order was to stop, and perhaps 20 seconds after the order was given to the engine full speed astern, that order was repeated in order to accent the order more, and at the same time three blasts of the whistles was given.

Q. When the three blasts were blown how far

off was the *Lisbonense?* A. Perhaps 700 or 800 257
meters about.

Q. At the time the whistles were given how far were you from the commander and the pilot? A. A few metres—two or three.

Q. Did you hear any hail at any time from your vessel to the other vessel? A. I did not.

Q. Did your vessel burn any signals after the collision? A. No.

Q. Did you sound any with your whistle? A. Yes, we did, we blew the whistle afterwards. We 258
searched out for the *Lisbonense.*

Q. How many times did you blow the whistle? A. An uncertain number of blasts, I can't determine. We blew the whistle.

Q. How soon after the collision were the first three blasts blown? A. At once, thirty seconds, perhaps after.

Q. Where was the *Lisbonense* then? A. I repeat that we were searching for her and couldn't see her. 259

Q. Who blew these whistles after the collision? A. A sailor appointed for that purpose.

Q. What is his name? A. I can't say, I don't recollect.

Q. Who ordered them blown? A. I don't know. I think it was the captain, but I can't swear of course.

Q. You did not give the orders yourself? A. No.

Q. Did your hear them given? A. I did not. I don't recollect. I had something else to attend to. 260
The whistle wasn't blown without orders anyway.

Q. What had you to do then? A. I was subject to the orders of the commandant; I waited his orders and instructions.

261

CHARLES BLANC, being duly sworn and examined (through the interpreter) as a witness for *La Champagne*, testifies:

By Mr. Jones: Q. You were the second lieutenant of *La Champagne* on the voyage of the collision with the *Lisbonense* I believe? A. Yes.

Q. Do you recollect what time the ship got under way on the morning of the collision? A. I can't say
262 exactly. It is noted on the log-book there.

Q. Where were you stationed as the ship passed Sandy Hook? A. On the bridge, at the telegraph to the engine to transmit orders.

Q. Did you see the signals that were burned by *La Champagne* to the Sandy Hook station? A. I did.

Q. They were the regular house signals of the line, I believe? A. Yes, sir; they were.

Q. When did you first see the light on the *Lis-*
263 *bonense?* A. Right away after having turned Sandy Hook; I can't say how quick; a few instants after.

Q. Do you recollect how it bore from *La Champagne's* course? A. I do not at that time; no.

Q. Go on and relate what you saw and what you heard and what occurred up to the time of the collision. A. After having turned Sandy Hook—the night was quite clear, without fog—we saw first the white and red light of the *Lisbonense*. We were going at half speed; the telegraph to the engine was
264 half speed. We continued in this way for some time, the commandant taking the bearing of the *Lisbonense*. When we began to get nearer to each other, the distance not being great and the bearing not changing, the commandant ordered the engine to be stopped, and then to be set going astern at full speed. A few seconds after the collision took place, I can't just say just the length of time after.

Q. Do you remember from which direction the 265
wind was blowing? A. From the northerly, a pretty fine breeze.

Q. And the tide, how was it running? A. Ebb tide, running out; about half tide; I can't say exactly.

Q. Do you remember whether any whistles were blown on *La Champagne*? A. We replied to a whistle from the *Lisbonense*, and afterwards when the commandant had the engine set going full speed astern he gave three blasts of the whiste. 266

Q. Were any other orders given to the engine between the time you passed Sandy Hook and the time you stopped, as you have just related? A. I can't say. The engineer's log book ought to have mention of it if there is any, but if there were they are not present to my recollection now.

Q. Did you notice or did you know at the time which side of the channel *La Champagne* was pursuing after she left Sandy Hook? A. According to my idea she was on the right-hand side, as much as 267
it was prudent to be.

Q. Did you notice upon which side of the channel *La Champagne* was when the collision occurred? A. Yes; on the right-hand side, to the right-hand side of the axis of the channel.

Q. Did you see or hear anything of the *Lisbonense* after the collision? A. I heard absolutely nothing. We were several officers on the bridge together, there. We searched for a certain length of time to see whether we could see the red light of the *Lis-* 268
bonense or any signals of distress. We even deceived ourselves at a certain moment, taking the red light of Sandy Hook for a light of the ship, and afterwards we noticed our error, but we didn't see anything more.

Q. You didn't receive any inquiry or offer of assistance from the *Lisbonense*? A. None.

269 Q. Did you notice whether or not a signal was burned on *La Champagne* to the pilot boat? A. Yes; one was burned.

Q. Did you notice whether any answer was made by the pilot boat? A. I don't know.

Q. Do you mean to say you don't know or you don't recollect? A. I don't recollect

Q. Did you hear anything on board *La Champagne* about going ahead at full speed—that is to say, did you hear any one on *La Champagne* call to
270 the *Lisbonense* to go ahead full speed? A. I think I heard it In fact, I am willing to say I did hear it, but as I don't understand English I can't say just what that meant.

Q. Did you notice where the *Lisbonense* was when that call was made? A. Yes; she was just passing by our stem.

CROSS-EXAMINATION by Counsel for the *Lisbonense:*

By Mr. Chubb: Q. What time did you go on duty
271 that morning? A. Twelve o'clock. From midnight until 4 o'clock was my watch.

Q. When you first began to get the anchor which way was your vessel swinging? A. She was swinging to the current.

Q. Which way was that? A. She was end on the stream, whichever way that was.

Q. Was she pointing out to sea or up towards New York? A. Towards New York.

Q. You had to turn before you could go down the
272 channel on your voyage? A. Yes.

Q. Did all the signals to the engines that were given that morning from the time you began to get under way until the collision pass through your hands? A. Absolutely all of them.

Q. From whom did you get the orders to make the signals? A. The commandant.

Q. In every case? A. Every time.

Q. In French, of course? A. Yes. 273

Q. Do you now remember all the orders to the engines that passed through your hands from the time of burning the company's lights off Sandy Hook until the time of the collision? A. I do.

Q. Will you kindly state them in their order? A. We were at half speed——

Q. At the time of burning the signals? A. We were at half speed at the time we burned the company's signals. We stopped; then we went astern afterwards. 274

Q. Half speed is thirty-five revolutions? A. I can't say exactly; but it is what gives us a speed of from ten to ten and one-half knots.

Q. How far was the place where you stood from the place where the commandant stood? A. At the time we stopped the commandant was at the alidade taking the bearings of the *Lisbonense*.

Q. How far off was that from where you stood? A. Perhaps one meter—not more than that.

Q. Was that in front of you, behind you or one 275 side of you? A. On my right hand side.

Q. Where you could see the captain as you stood? A. Perfectly.

Q. How long prior to the day of the collision had you been in the same ship with the captain? A. I have been aboard *La Champagne* since July of last year.

Q. Has the captain been on board the same time? A. Yes.

Q. Did your vessel make any signals for assist- 276 ance after the collision? A. I can't tell you.

Q. Did you hear or see any such signal given? A. I can't tell. I was occupied at the telegraph to the engine, I was attentive at my post.

Q. How long after the collision did you stay at your post by the telegraph? A. Until we arrived in New York and made fast to the wharf.

277 Q. Did you look behind you at any time after passing Sandy Hook? A. Yes, I did.

Q. Did you look at the range lights of the channel you were in? A. I saw the red light of Sandy Hook.

Q. Did you see any lighthouses? A. I didn't see lighthouses; no, at least I didn't pay attention.

278

JOSEPH BECOT, being duly sworn and examined (through the interpreter) as a witness for *La Champagne*, testifies:

By Mr. Jones: Q. What is your position on *La Champagne*. A. Third lieutenant of the steamship *La Champagne*.

Q. And you were such at the time of the collision with the *Lisbonense*, were you? A. I was.

Q. Were you on duty at the time the *Lisbonense*
279 was sighted? A. Everybody was on duty.

Q. Where were you stationed? A. When we get under way my post is at the telephone; I transmit orders from the commandant to the officer that is aft; that is my whole business, my duty is to do nothing else but that.

Q. Where are you stationed; where is the telephone? A. On the bridge; on the left hand side, on the port side of the bridge.

Q. Do you remember seeing the light of the *Lis-*
280 *bonense?* A. Yes, I saw it after we passed Sandy Hook—a white light and red light.

Q. How did the lights on the *Lisbonense* bear at that time from *La Champagne?* A. About two points or 25 degrees on the starboard hand. I can't say precisely because I was on the port side of the ship.

Q. Do you remember burning any signals as you

passed Sandy Hook? A. Yes; we made the usual 281
signal of the line.

Q. Do you remember how the wind was blowing? A. The wind was from the north, northwest, and a fine breeze.

Q. And how was the tide running? A. Ebb tide, about the second hour of ebb tide.

Q. Do you remember of exchanging whistles with the *Lisbonense?* A. We heard a whistle from her to which we replied by a whistle a moment after.

Q. Did you notice which side of the channel you 282
were pursuing? A. The right-hand side as much as the tide allowed us to.

Q. Go on and relate in your own way what you saw and what you heard after you had exchanged signals with the *Lisbonense?* A. When the distance began to get shorter so that we feared collision the commandant had the engine stopped; that is to say, when we saw that the other ship didn't manœuvre. And almost immediately we had the engine set going astern, the orders were given almost without inter- 283
ruption.

Q. Did you hear or see anything else? A. I would like you to ask questions.

Q. How soon after the engines were set full speed astern did the collision occur? A. I didn't have a watch in hand, but I should suppose about two or three minutes.

Q. Did you notice the angle of the two vessels at the time of the collision? A. About at right angles.

Q. Did you notice the side of the channel that *La* 284
Champagne was on at the time of the collision with reference to any lights ahead or in the rear? A. I didn't take any bearings—but we held the right-hand side of the channel as much as we could—because I am at the telephone and there is a box that conceals the forepart of the ship from me.

Q. Did you see or hear anything of the *Lisbonense*

285 after the collision? A. She disappeared; I tried to get her bearing but couldn't see anything of her.

Q. Did you receive any hail or word from her asking if you wanted any assistance? A. Nothing; she disappeared almost instantly.

Q. You say that your position at the telephone obscured your vision forward. Did you notice any lights abaft? A. No; the box opens forward and I looked forward into the box.

Q. At the time of the collision state whether or
286 not you observed anything that indicated the position of the ship on one side or the other of the channel? A. I took no bearings, I did not.

CROSS-EXAMINED by Counsel for the *Lisbonense:*

By Mr. Chubb: Q. How far is the telephone at which you were from the place where the commander was standing at the time of passing Sandy Hook? A. The telephone is on the port side of the bridge, and the captain is at the middle of the bridge,
287 looking, according to the requirements of managing the ship. At the time of the collision he was at the middle of the bridge.

Q. Did any orders pass through your hands from the time of burning the signal until the collision? A. None.

Q. Did the telephone you were at lead forward or aft, or both ways? A. Aft only, not forward.

Q. Was there another one that led forward? A. There is a speaking-tube that goes forward, and it
288 has a quartermaster to have charge of that; that is posted there.

Q. Does the quartermaster at that speaking-tube stand near you or on the other side of the bridge? A. On the starboard side of the bridge. He occupies about the same position that I do as regards the bridge only on the other side.

Q. At the time the three whistles were blown did

you see the *Lisbonense?* A. When they began to 289
make signals I moved a little from my position, and I saw the *Lisbonense.*

Q. How far off was she then? A. I can't say the distance, but it was more than 1,000 meters.

Q. At the time you then saw her did you see any lights on her except her red light and masthead light? A. No, I did not.

Q. How long have you been on your vessel? A. Since September.

Q. You have heard the captain, pilot and first and 290
second lieutenants give their testimony in this case? A. I heard only the first and second lieutenant.

Q. You were not here yesterday? A. I was not.

Q. Are you entitled to command a vessel? A. Yes, I am shipmaster; I have commanded five years.

FRANCOIS BUREAU, being duly sworn and exam- 291
ined (through the interpreter) as a witness for *La Champagne*, testifies:

By Mr. Jones: Q. What is your position on *La Champagne?* A. I am chief engineer of the steamship *La Champagne.*

Q. And you were such on the 7th of December last? A. I was.

Q. Were you on duty at the time of the collision between *La Champagne* and the *Lisbonense?* A. I was not on watch, but I am always in the engine- 292
room during the manœuvres.

Q. Where were you between quarter past five and half-past five of that morning? A. In the engine-room.

Q. What was the number of revolutions made by the engine at quarter past five? A. Half speed. We were manœuvring and we had not passed half speed since quarter past five.

293 Q. About how many revolutions was the engine making? A. 35; half speed; that could vary from 34 to 36. When we are getting ready and manœuvring that way we don't take exact account of the number of turns, we judge by our ear.

Q. At any time between quarter past five and half-past five did you receive any orders from the bridge to the engine, and if so, state what they were? A. At 5.27 we received the order to stop the engine and the engine was at 35 turns at that
294 moment, half speed. A few seconds after—I can't say exactly because we only note by minutes—I can't say exactly, but a few seconds after stopping we got the order "Engine astern at full speed;" then the telegraph repeated "Full speed astern" the second time; the two manœuvres were almost simultaneous, hardly was the first one made before the second one was made.

By Mr. Chubb: Q. Which two? A. The two manœuvres, the engine astern and the engine astern full
295 speed. And it is understood in the engine-room that when an order is repeated that means that the first order shall be repeated in the strongest manner, that is, full speed astern as much as you possibly can.

By Mr. Jones: Q. Do I understand you to say that you received three orders: First, an order to stop, then an order to go astern, and then an order to go full speed astern? A. The first order after "Stop" was "Full speed astern," and then this or-
296 der was repeated again.

Q. And the third order was the mere repetition of the second? A. Of the second; it was.

Q. What was the interval of time between the order to stop and the order to reverse full speed astern? A. 20 or 25 seconds, about; I can't say exactly, because we had no watch with a second-hand in the engine room.

Q. Were there any other manœuvres made by the 297
engine between quarter past five and half-past five? A. I don't remember exactly, but you will find it in the engineer's log, all the manœuvres that were ordered to the engine.

Q. Do you keep that log-book? A. No; it is the ship's engineer that is on board.

Q. Who personally keeps it? A. The three engineers, the three ship's engineers.

Q. And it is their joint work? A. Yes; each one writes what occurs in the engine-room during the 298
time that he stays there, during his four hours.

Q. Who of your assistants was in charge of the engine at the time of the collision? A. The third engineer.

Q. What is his name? A. Monsieur Legnion.

CROSS-EXAMINED by Counsel for the *Lisbonense:*

By Mr. Chubb: Q. Do you know what your steam pressure was at the time you got the order to reverse? A. It was in the neighborhood of ap- 299
proaching eight kilos; that should be noted on the engineer's log.

Q. Which of the other witnesses from your vessel have you heard testify here? A. Everybody; I was here yesterday.

Q. How long have you been on your vessel? A. Since December, 1887.

300

EUGENE LAGNION, being duly sworn and examined (through the interpreter) as a witness for *La Champagne*, testifies:

By Mr. Jones: Q. What is your position on *La Champagne?* A. Third engineer of *La Champagne.*

Q. You were in charge of the engine on the morn-

301 ing of the collision with the *Lisbonense?* A. I was on duty at that time, on watch.

Q. In charge of the engine? A. I was responsible for the manœuvres of the engine, under my chief.

Q. How was the engine running between quarter and half-past five on the morning of the collision? A. We had been going at half speed since 5.12 that until we stopped.

Q. What time did you stop? A. At 5.27, as near
302 as I can recollect.

Q. What is half speed? A. About an average of from 34 to 36 turns.

Q. Was any other change made in the speed of the engine between 5.12 and 5.27 than the one you have just stated? A. I don't recollect. It is on the log if there was any.

Q. Do you personally make entries in the log-book? A. Yes. Everything that takes place during the watch is written on the log at the end of the
303 watch.

Q. Written in your handwriting? A. Yes.

Q. (Handing witness a book.) Are the entries on the folio page which I now show you, being page 21 of this book, in your handwriting? A. Yes, that is my handwriting.

Q. Would you be able by referring to those entries to refresh your memory and state particularly whether or not any other manœuvres were made by the engine between 5.12 and 5.27 than the one you
304 have already mentioned? A. Yes.

Q. Refer to the book and state whether or not any manœuvres was made by the engine between 5.21 and 5.27 except to stop, as you have already stated? A. There is none. Half speed at 5.12, stop at 5.27.

Q. What manœuvre of the engine did you make after you stopped? A. Not one minute after the

time we stopped the engine was set going astern at full speed, and a few instants after that another order, "Engine astern at fullest possible speed." Those two orders were given almost immediately, one after the other. 305

Q. And if you were asked to fix the time that those two last orders were given, what would you state? A. It might have been twenty to twenty-five seconds from the time that the first order, "Engine full speed astern," was given to the second order, "Engine full speed astern." 306

Q. How long was it after you received the order to stop that you received the first order to go full speed astern? A. Fifteen or twenty seconds, perhaps.

Q. How long were your engines going full speed astern? A. About a minute.

Q. Does this log-book show exactly how long the engines were going full speed astern? A. It should be written there; that ought to be given exactly as we take the time in the engine-room. 307

Q. Now look at your log-book and tell us how soon after you received the order to go full speed astern you stopped your engine? A. We received the order to go astern full speed at 5.28, at the highest possible rate of speed, and the order was repeated immediately; we stopped at 5.29.

Q. What was the next manœuvre? A. Almost at the same time we stopped, at 5.29, we received an order, "Full speed astern."

Q. And how long was that order in process of execution? A. One minute. We stopped at exactly 5.30. 308

Q. What was the next order? A. "Engine astern slow," at 5.45.

Q. These entries that you make in the log book are taken from the blackboard, are they not? A. Yes, sir.

309 Q. And on the blackboard when you make an entry do you divide the minutes? A. No, we only note by minutes.

Q. Do you divide the minutes in your log-book? A. No; we do the same as we do on the blackboard.

Q. Then I assume that when you make an entry by minutes here if the time is exactly between one minute and the other you note the minute which is nearest to the point of time at which the entry is made or the order received? A. Yes, we do.

310 CROSS-EXAMINED by Counsel for the *Lisbonense:*

By Mr. Chubb: Q. If you got an order at two minutes and fifty-five seconds past an even hour how would you enter it in your log-book? A. The minute following, which would be three minutes.

Q. Then the times of the different orders to which you have testified may in any case vary thirty seconds from the exact time at which you received the order? A. No. It can't vary thirty seconds, be-

311 cause the order would be executed before that.

Q. Do you understand the question? (Repeated.) Then the times of the different orders to which you have testified may in any case vary thirty seconds from the exact time at which you received the order? A. Yes, they can, but I don't think there is that; that could be so, yes.

Q. Did you feel the shock of the collision? A. It was so insignificant that I didn't even make a mention of it on the log.

312 Q. Do you know, as matter of fact, which of the orders you have mentioned on your direct-examination was the first to reach you after the collision? A. I had no knowledge of the collision until I left my watch.

Q Do you know, as matter of fact, what your steam pressure was at the time you got the order to reverse? A. It must have been between 7 kilos, 800 to 8 kilos, as it always is when we are manœuvring.

Q. You have no distinct recollection on the point, 313
have you? A. No; I don't recollect exactly. The log-book states.

Q. Can you tell by looking at the log-book or at any other book? A. I can. (Referring to the log-book.) It isn't noted on the log-book what the pressure was at the time we went full speed astern, but it is stated here what the pressure was from the time I went on watch until I left it.

Q. State what those pressures are? A. I went on watch before the manœuvres, and there was 7 kilos 314
of steam and it increased to 8 kilos; from two to six it went up a kilo and was 8 kilos; consequently, at the time you mention it must have been between 7 and 8 kilos.

Q. When did you get off duty? A. At 6 o'clock.

Q. After the repeated order of full speed astern which you have mentioned already, what was the next order you got and what was its time? A. "Stop."

Q. And the time? A. One minute after. 315

Q. Can you tell it certainly by looking at your book? A. (Referring to the log-book.) We went astern full speed at 5.28; at once we received the repetition of this order and we stopped at 5.29; that is to say, the order to stop was received at 5.29.

Q. Which of the other witnesses from your vessel have you heard testify? A. I was here yesterday. I heard them all that were here yesterday and to-day.

316

OLIVER LEUDUGER, being sworn and examined (through the interpreter) as a witness for *La Champagne*, testifies:

By Mr. Jones: Q. What was your position on *La Champagne*? A. I was the man at the wheel.

317 Q. You were at the wheel when the collision occurred? A. I was.

Q. How long had you been on duty? A. I went on watch at 4 o'clock.

Q. Are you alone or do you have somebody with you at the wheel? A. There is frequently an officer with me; he is not at the wheel, I am the one that manœuvres the wheel.

Q. The question is do you have anybody with you or to assist you in manoeuvering the wheel? A. I do
318 not.

Q. The steamer steers by steam, does she not? A. Yes, sir; she does.

Q. Where were you situated? A. In the wheel-house.

Q. And where is that? Q. On the bridge.

Q. Do you remember passing Sandy Hook on the morning of and before the collision? A. I do.

Q. Do you remember of exchanging signals with a steamer after passing Sandy Hook? A. I saw
319 three lights through the side lights.

Q. (Repeated.) Do you remember of exchanging signals with a steamer after passing Sandy Hook? A. I do not.

Q. After passing Sandy Hook and until the collision, did you note the course that you steered with reference to any channel lights or other bearings? A. I did.

Q. What channel lights were they? A. I steered towards the white light which was a little on the
320 port side.

Q. How many lights altogether did you see? A. I can't say exactly; there were a number.

Q. Do you know the lights in Gedney's Channel? A. No, sir.

Q. That is to say, you don't know the name of the channel; is that right? A. I know the channel that

we use habitually, but as to the shallows and that I don't know. 321

Q. After leaving Sandy Hook do you remember of having any channel lights whatsoever on your starboard hand? A Yes, sir, there were, but I guided myself by the port lights, by the lights on the port hand.

Q. Did you see the *Lisbonense* before the collision? A. Yes; I saw a red light.

Q. How long before the collision? A. I can't judge; my position didn't permit me to judge of 322 that.

Q. Did you notice the heading of *La Champagne* at the time of the collision? A. On the right hand side of the channel.

Q. How do you decide that? A. By the distance of the buoys, which were further away from us on the port hand than on the starboard hand, on the left-hand than on the right-hand.

Q. How long had you been on that heading before the collision? A. All the way. 323

Q. All the way from where, Sandy Hook? A. After having left Sandy Hook.

CROSS-EXAMINED by Counsel for the *Lisbonense:*

By Mr. Chubb: Q. What was your position on board? A. I am head wheelsman.

Q. Is that the same thing as quartermaster? A. Yes; that is what I am.

Q. Do you have anything else to do when you are on duty except to steer? A. That is all I do. 324

Q. How far did you stand from where the commander stood between passing Sandy Hook Light and the collision? A. About two meters.

Q. Do you remember what orders were given to you during that interval? A. I do.

Q. From whom did you get them? A. From the pilot and from the commandant; the pilot gave the

325 orders and the commandant then transmitted them to me.

Q. Did you obey any orders except what reached you from the commandant? A. I did not.

Q. Were any other orders given to you except those given to you by the commandant? A. Nobody else gave me orders.

Q. What was the first order you got after the burning of the company's signals off the point of Sandy Hook? A. To steer the ship by the compass
326 and by the light that I was instructed to follow.

Q. What was the compass course that you steered by? A. To go to the southeast; I can't recollect exactly; I don't recollect exactly.

Q. When was the compass course given to you? A. I am not given a course by compass unless it is in foggy weather; if it is not foggy we guide ourselves by the lights.

Q. Then you were not steering by compass on the occasion in question? A. I did not.

327 Q. What were you steering by? A. The lights.

Q. Which lights? A. The lighted buoys in the river.

Q. What were their colors and how did they bear from you at the time of burning the signals? A. I was steering by a white light ahead after we burned the company's signals.

Q. How did you steer for it; did you try to keep it dead on, or on which bow? A. Almost ahead, a little on the port hand.

328 Q. How little or how much on the port hand? A. Two degrees, two or three degrees.

Q. And was that what you were steering for the whole time from the burning of the company's signals until the collision? A. No. We changed according to the direction of the channel, according to the orders.

Q. Who gave the order? A. The captain.

Q. How many times did you change? A. We 329
changed so slowly I didn't change the course much.

Q. How many times did you change? A. I don't know. The course was almost straight.

Q. You have mentioned a white light that you had few degrees on your port hand and was steering by. Did you see that light at the time of the collision? A. I didn't pay any attention to that at that time.

Q. When the captain gave you orders what did he say? A. Steady as you go. 330

Q. What is that in French? A. Droit comme ça.

Q. From the time of the burning the signals until the collision did you get any other order than this one that you last mentioned? A. I don't recollect.

Q. What sort of a memory have you? A. I suppose I have a good memory.

Q. How long have you been on your vessel? A. Little over eight years.

Q. You said on your direct-examination that you guided yourself in steering by the port lights. Why 331
did you do so? A. Because the compass is not entirely reliable in the river and we take the lights to go by.

Q. Why did you take the port lights rather than the starboard? A. Because I was on the port side, stood on the port side to steer, and the mast is right in front of me, therefore I have to stand on one side or the other to steer.

Q. It was easier for you to see the port lights than
the starboard lights, is that it? A. It is easier to 332
steer by the lights right ahead than by those that are on the other side.

Q. Which of the other witnesses from your vessel have you heard testify? A. I heard, but I didn't understand. I have been here since yesterday morning, but I was sitting back there and didn't understand.

333

NEW YORK, June 12, 1891.

Met pursuant to adjournment.

EDWARD JOSEPH DUPONT, being duly sworn and examined (through the interpreter) as a witness for *La Champagne*, testifies:

By Mr. Jones: Q. You are second captain of *La Champagne*, and were such on the 6th and 7th of
334 December last, I believe? A. Yes.

Q. The 7th of December last was the day of the collision between the *La Champagne* and *Lisbonense?* A. It was.

Q. I call your attention to the time when the ship was about opposite Sandy Hook; where were you stationed at that time? A. Way forward on the ship, so near I could touch the stem.

Q. And what were your duties? A. To look out forward; to look out generally as to what there was
335 around me, and the ship's lights.

Q. Do you remember in passing Sandy Hook making the usual company's signal to the station there? A. I do.

Q. What course did the *Champagne* take after leaving Sandy Hook? A. She first followed the regular course of the main ship channel, and we afterwards took the right-hand side of that channel.

Q. Where was the *Champagne* when your atten-
336 tion was called, if it was called at all, to the red and white lights of the *Lisbonese?* A. I myself saw the *Lisbonense* a little after we passed Sandy Hook. I saw the white light and red light of a steamer.

Q. How did those lights bear from the *Champagne?* A. Between two and two and a half points on the starboard hand.

Q. Taking up the events that occurred prior to the 337
collision, from that point please state your recollection of the facts, giving in detail what you heard and what you saw? A. After we passed Sandy Hook we made the company's signal, and then we saw this steamer. We burned a torch forward to call the pilot boat on to the station.

By the Court: Q. That is, to call the pilot boat to take back the pilot, I suppose? A. Yes; to call the attention of the pilot boat on the station to the fact that we would be very soon ready to let him take off 338
our pilot. Then I heard blasts of the whistle exchanged between the *Champagne* and the *Lisbonense*, and then I saw by the change in the direction of the light that the *Champagne* came to on the starboard hand a little as she went down the channel.

Q. I don't quite understand what you mean by coming to? A. That she came to on the starboard side; she swung to starboard.

Q. To her own starboard? A. Yes; to her own starboard hand. 339

By Mr. Jones: Q. In other words, she came a little to the right hand? A. Yes; she changed her course to the starboard hand in such a way as to take the right-hand side of the channel. Then the two vessels continued to approach each other. I then notified the commandant that the ship in sight was approaching us very fast. He replied to me: "We have stopped and we are going to back," and I felt by the vibration, the trembling of the ship, that we were backing. At that moment I remained 340
there very attentive to the manœuvres that the other ship was going to make. The moment preceding this I had heard the three blasts of the whistle, which indicated that we were going astern. I saw that the *Lisbonense* was coming at an angle which was almost a right angle and was going to pass ahead of us. As I was way forward as far as I could be

341 on the *Champagne* the bridge of the *Lisbonense* and the people that were on her were not far from the same height at which I was and very near to me. When the bridge of the *Lisbonense* had got by our stem and was little on the port hand of us, I leaned over forward to see what distance there was between the two ships; when I saw that the distance was only a few meters between us and the other ship was getting close, and that there remained only about 20 meters of the after part of the *Lisbo-*
342 *nense* that hadn't got by us, I shouted in the best English I could use, "Full speed, Captain, full speed."

By the Court: Q. You shouted that to which captain? A. To the captain of the *Lisbonense.*

Q. When you shouted, "Full speed, Captain," what is your estimate of the distance between your stem and the side of the *Lisbonense?* A. 10 meters, and I calculate that there remained about 20 meters of the *Lisbonense* to pass us yet.

343 By Mr. Jones: Q. How far off do you estimate the *Lisbonense* to have been when you notified the captain she was getting very near, and he answered that he had stopped his engine and was about to reverse? A. Between 800 and 1,000 meters.

Q. Did you see or hear anything of the *Lisbonense* after the collision? A. At the time of which I speak, when I shouted to the captain, I leaned over as far as I could forward and I saw a spark of light, of fire, when the collision took place; I saw the *Lis-*
344 *bonense* heel over to the starboard and as she passed by on our port side I saw her masts in line and she appeared to be heading toward Coney Island. After that I saw no more of her, nor did I hear anything from her, no whistles.

Q. How do you think she was heading at the time of the collision? A. I think she heading north by west true.

Q. Would that heading correspond with the line of the Swash Channel or would it deflect either way, and if so, which way? A. No, it was on the starboard side of the axis of the Swash. 345

A. About how much? A. Three or four points. It ought to be easy to notice on the chart the exact angle that she had.

Q. Did you observe whether or not shortly before the collision there was any change of bearing of the *Lisbonense?* A. No; but I am convinced that the *Lisbonense* came squarely across our course and that in holding up the course she had, her stern swung up against our stem. If you will let me have the little models, I will show what my idea of that is. (The witness illustrates by the models that as the vessels approached each other, the stern of the *Lisbonense* swung towards the stem of the *Champagne* as if she were under a port wheel.) When I hailed to the captain of the *Lisbonense*, "Full speed, Captain," I judge that the vessels were heading a difference of about five and a half points. 346 347

Q. I wish you would take these two models—the larger we will suppose is the *Champagne* and the smaller the *Lisbonense*—and place them in their relative positions so as to show the situation of the *Champagne* and *Lisbonense* at the time you notified the captain that the *Lisbonense* was approaching very near? A. (The witness does as requested.) The distance was between 800 and 1,000 meters as I estimate it.

The Court traces the outlines of the models as placed and the paper is marked *Champagne's* Exhibit 9, June 12, 1891. 348

Q. Take the models and place them in the situation of the two vessels when you called to the captain: "Full speed, Captain." A. (The witness does as requested.)

349 The Court traces the outlines of the models as placed and the paper is marked *Champagne's* Exhibit 10, June 12, 1891.

Q. State whether or not the *Lisbonense* stopped and offered any assistance after the collision? A. No.

Q. Did you see her or hear of her after she passed on? A. Not at all.

Q. How far distant do you suppose the *Lisbonense*
350 was when you first sighted her lights? A. I think she was about half way between the Scotland Lightship and the intersection of the two channels.

Q. You are a regularly licensed captain of the French merchant marine, are you not? A. I am.

Q. And Messieurs Blanquie and Becot, respectively, first, second and third lieutenants, are also regularly licensed shipmasters of the French merchant marine? A. Are also shipmasters.

351 CROSS-EXAMINED by Counsel for the *Lisbonense:*

By Mr. Chubb: Q. Can you explain the difference between the duties of a second captain on the French steamer and the chief officer on an American steamer? A. I cannot.

Q. Do you know whether there is any difference? A. I do not.

Q. When the second captain is on duty and the commandant is also on duty, is the second captain at liberty to give orders except by direction of the
352 commanding officer? A. No.

Q. How long have you been on your vessel? A. Two years.

Q. Were you on board the vessel when certain experiments were made off the port of Havre with reference to ascertaining the length of time in stopping? A. I was.

Q. Were you on duty on that occasion? A. I 353
was forward at my post.

Q. Do you remember in what length the ship was stopped from going at half speed by reversing her engines at full speed? A. I don't remember exactly the figures, but they are to be found on the memorandum the captain drew up at the time.

Q. Did you take part in preparing that memorandum or any of the figures? A. No, I did not.

Q. Did you form an approximate idea at the time what this distance I have asked you about was? 354
A. Do you mean during the trial, at the time of the trial?

Q. Do you know approximately what the distance was that was required? A. All that is written in the memorandum made by the commandant.

Q. I want to know if you know? A. I do not.

Q. Have you any idea on the point? A. I have not.

Q. It is your belief that the figures given in the captain's memorandum are correct? A. I am certain 355
of it.

Q. And you are sure that the observations on which it was based were accurately taken? A. Exactly.

Q. On Exhibit 9 you have put the distance between 800 and 1,000 meters. Was that at the time the captain told you in answer to your hail that he had already stopped his engines and was about to reverse them? A. It was.

Q. You cannot hear the orders to the engine from 356
where you stood on that occasion, can you? A. No, I cannot, but I feel when the engine is going astern by the trembling of the ship.

Q. Did you feel this trembling of the ship directly after the captain answered you? A. At once.

Q. How did you communicate with the captain?

A. By speaking tube.

357 Q. Was it the captain's own voice or through a quartermaster? A. It was the voice of the quartermaster at the speaking tube. That is, the boy there took my information, that I gave to the captain; the boy is the one that did the speaking, I told him what to say.

Q. You told the boy and the boy spoke through the tube to the quartermaster and the quartermaster spoke to the captain, and the same right back; is that it? A. Yes.

358 Q. And the trembling was a moment after the boy had repeated to you what he heard through the speaking tube? A. It was.

Q. What was the angle between the port sides of the two vessels at the first moment of striking? A. A little less than a right angle I think, that is to say, from 75 to 80 degrees.

Q. You had no compass where you were of course? A. No; but I could see by the way the ships crossed each other.

359 Q. Were you as far forward as it was possible for you to get at the very moment of the collision? A. Yes. I saw the collision, I saw the contact with my eyes.

Q Then the part you stood on was above the point of contact? Yes.

Q. How much? A. About four meters.

Q. Did I understand you to say you were the first person on your vessel that saw the *Lisbonense's* lights? A. I might not have been the first, but I am the one

360 that reported the lights. I wish to explain that I am way forward; I report to the commandant that I have seen a light, that doesn't mean that he hasn't seen it himself.

Q. How did you report this case? A. We have a trumpet there forward, and when we saw this vessel we gave a blast on the trumpet.

Q. Did you do so in this particular case? A. 361
Yes.

The Witness: I wish to explain that there is a memorandum with the figures 2, 3, 1 right before the man at the wheel. When the men are green there, they see that 2, 3, 1 for the blasts of the trumpet, to indicate that one blast means a vessel on the starboard hand; three a vessel right straight ahead, and two blasts a vessel ahead on the port hand. This is the way it happened: We gave one blast of the trumpet and then told him by the speaking tube 362
"There is a steamer ahead."

Q. At the time you blew this one blast of the trumpet, had you burned your company's signals? A. We had just burned it.

Q. Had you then burned the signal to the pilot boat? A. No; not yet.

By the Court: Q. Did you get any answer to your torch to the pilot boat? A. I didn't see any. I know the pilot said he saw an answer, but I didn't see it. 363

By Mr. Chubb: Q. Do you know what the compass course is for a vessel going up the Swash Channel? A. I haven't it; it isn't present in my mind now, but if you give me the chart I can tell you.

Q. You said on your direct examination, as I understood it, that you were convinced that the *Lisbonense* came squarely across your course. Did you mean by that that her course was at right angles with your course? A. No. 364

Q. Please explain just what you mean? A. (The witness illustrates on a page of legal cap.)

Q. Are the two straight lines intended to represent the axis of the Main and of the Swash Channel respectively? A. About.

The paper is offered in evidence and marked the *Lisbonense's* Exhibit A.

365 Q. I think you said the *Lisbonense* did not stop to render you any assistance. Did you mean to testify that as matter of fact the *Lisbonense* did not stop after the collision? A. She did not.

Q. How do you know that? A. Because we lost sight of her immediately after, and in spite of all our efforts we were not able to find her again.

Q. Did your vessel burn any signals for assistance? A. We did not, but we gave repeated blasts on the whistle to which the *Lisbonense* could have
366 answered.

Q. Do you know where the tug *Assistanee* was at the time of the collision? A. On our starboard quarter.

Q. How close to you? A. The distance of 100 or 200 meters; I don't know exactly, as I wasn't there. I couldn't see the tug, but she was there on the starboard quarter.

Q. How much did the *Lisbonense* heel under the blow? A. Two or three degrees perhaps.

367 Q. At the time of the collision did you see any of the range lights or did you have any of the lights on the Hook in range? A. No, we were on the starboard side of the channel.

Q. You didn't see any of the lights that were astern of you at or very near at the time of the collision? A. I beg your pardon. As we were altogether on the starboard side of the channel the red light of Sandy Hook appeared, showing that we were in the red sector of that light.

368 Q. When was that? A. It was just two or three seconds before the collision, at the time of the collision.

By the Court: Q. Won't you explain to me by this chart (published August, 1889, and corrected up to September, 1890), what you mean by the red sector? A. This red light is shown by the Sandy Hook Lighthouse there to warn vessels not to an-

chor where they can see it on account of the electric 369
wires which are laid down to light the channel buoys.

Q. This gives notice that you can't anchor within the area which is lighted by the red light? A. Yes, sir.

By Mr. Jones: Q. You couldn't have been in the range of the red sector of the Sandy Hook light without being on the south side of the channel?

Objected to, that the chart speaks for itself. 370

A. We could not.

The Witness: I wish to make an explanation. I was asked the question whether I had the right to give orders on the ship in the presence of the commander. I have, but not as to the course of the ship. I have the right to give orders but not as to the course of the ship.

By Mr. Chubb: Q. Does that mean as to the navigation of the ship? A. No, the commandant is the only one that has a right to give orders as to navi- 371
gation.

By Mr. Jones: Q. Assuming that you were as far up the channel as is marked here by Capt. Boyer as the place of collision, which I now show you, could you have been within the red sector of the Sandy Hook Light without being on the south side of the channel?

Objected to, that the chart speaks for itself.

The Court: If the witness has any knowledge of 372
that independent of the chart he can state his knowledge.

Q. Have you had any knowledge of the range of the red sector of the Sandy Hook Light from your experience independently of the lines shown in the chart? A. I have seen it in going by, but I can't tell just where it stops or just what its limits are; I think the chart ought to explain that.

373

ALBERT DAFFRAIN, being duly sworn and examined (through the interpreter) as a witness for *La Champagne*, testifies:

By Mr. Jones: Q. You are an apprentice boy on board of the steamship *La Champagne?* A. Yes.

Q. And you were such when the collision between *La Champagne* and the *Lisbonense* occurred? A. Yes.

Q. You saw the collision? A. I did.

374 Q. Where were you stationed? A. On the top-gallant forecastle.

Q. Anywhere near the second captain, Mr. Dupont? A. Yes.

Q. Do you remember Mr. Dupont saying, "Full speed, Captain"?

Objected to as leading.

Q. Do you remember that Mr. Dupont said anything when the *Lisbonense* was near by the *Champagne?*

375 A. I do recollect very well.

Q. Do you remember that he called to any one on the *Lisbonense?* A. Yes; when the *Lisbonense* got about three-quarters by Mr. Dupont cried, "Full speed;" and then he leaned over to see whether she was going to hit.

CROSS-EXAMINED by Counsel for the *Lisbonense:*

By Mr. Chubb: Q. How old are you? A. Fifteen years.

376 Q. How long have you been at sea? A. Since I am thirteen.

Q. Do you understand English? A. I do not.

Q. What words did you hear the second captain call out? A. Full speed. And then on board the English ship they answered, "All right."

Q. Did you know what those two words meant at that time? A. Nearly about.

Counsel for *La Champagne* reads the following depositions of eight witnesses examined on behalf of *La Champagne.* 377

JOSEPH ROUXEL, called by counsel for La Compagnie Generale Transatlantique, being duly sworn, says:

Q What is your name, age, residence and occupation? A. Joseph Marie Rouxel; 38 years old; from 378
Denoux; and am boatswain of steamship *La Champagne.*

Q. When and for what port does this steamship *La Champagne* sail? A. Saturday, for Havre.

Q. Do you expect to go by her? A. I do.

Q. What was your occupation on the 6th day of December last? A. I was on the top-gallant forecastle head attending to the orders as given by the captain.

Q. You were then boatswain of the steamship *La* 379
Champagne? A. Yes, I was.

Q. After the steamer left New York for Havre on the 6th of December, please state whether or not she went to sea at once or was delayed by fog? A. We anchored outside of Quarantine.

Q. How long did you remain at anchor? A. Two or three hours, from two to three o'clock until about four o'clock the next morning.

Q. As you passed out the channel did you cause any signals to be burned, and if so, where? A. Yes, 380
we did, on the spar deck, a light– blue, white and red.

Q. Those were the customary night signals of the ships of the French line? A. Yes.

Q. Where was the *La Champagne* when those signals were burned, near what point of land? A. Opposite Sandy Hook ("traverse," being the word used by witness).

381 Q. Who gave the order for the burning of those signals? A. The officer of the watch.

Q. Did you have anything to do with the execution of that order? A. I did.

Q. What was it? A. To give a blow of the whistle in order that the signals should be lighted together.

Q. What whistle do you mean? A. Boatswain's whistle (showing whistle).

Q. Were these signals fired all by one man or
382 different men? A. Three.

Q. On which side of the ship were they burned? A. Starboard.

Q. About how far were they apart? A. About fifteen meters apart.

Q. Do you remember of seeing any light on a ship ahead or nearly ahead of you? A. I do not.

The interpreter used the word "feu" for the word light.

383 Q. I mean did you see any ship's light ahead of you on the bow? A. I saw a red light.

Q. How did it bear to your ship? A. On the starboard hand.

Q. Did the *Champagne* come into collision with another ship as she was going out the channel? A. Yes.

Q. Did you see anything of the other ship after the collision? A. No; she had disappeared.

Q. State whether or not you heard any signal
384 from her? A. No, I did not.

Q. What was the condition of the atmosphere as to light or darkness as you passed Sandy Hook? A. It was clear.

Q. Was it daylight? A. No.

Q. Do you know how the wind was blowing? A. West-northwest.

Q. Strong or light? A. Strong.

Q. Do you know the condition of the tide at the 385
time? A. I do not; no.

Q. Did you hear any whistle blown on the *Champagne* before the collision? A. Yes.

Q. Did you hear any whistle blown aboard the *Lisbonense?* A. No.

Q. State whether or not you knew at the moment of or immediately after the collision, what steamer you had collided with? A. No.

Q. What sound of the whistle of the *Champagne* did you hear before the collision? A. One blast of 386
the whistle, and three blasts of the whistle afterwards.

Q. Did you notice whether or not the engines of the *Champagne* were reversed before the collision, and if so, when? A. They were before the collision—a few moments before the collision—five or six minutes.

Counsel for claimant and cross-libellants asked which word the witness used, "moments" or "minutes." 387

Interpreter replies, "I think he used the word "moments."

Q. When, with reference to any blast or blasts of the whistle, did you notice the *Champagne* engines were reversed? A. As soon as the three blasts were given the engines astern were set going, because the ship trembled.

Q. After passing Sandy Hook, do you remember 388
having made any signal to the pilot station, and if so, what signal? A. I know a signal was burned forward, but I don't know what color.

Q. Did you hear the order given for that signal? A. I did.

Q. Do you know anything about the course of the channel from Sandy Hook out to the place of collision? A. I do not.

389 Q. State what regulation lights, if any, were set and burning on *La Champagne?* A. The red light, the green light, and the white light at the masthead.

Q. By what illuminating power are those lights burned? A. Electricity.

Q. Where were you on the *Champagne* from the time she left Sandy Hook until the time of the collision? A. Away forward.

Q. Were you there on duty as boatswain in
390 charge of the men? A. I was.

CROSS-EXAMINATION by Sidney Chubb, Esq., counsel for claimant and cross-libellants:

Q. How long have you been boatswain? A. Since 'eighty ('80.)

Q. How long have you been aboard the *Champagne?* A. I went aboard in April, which makes eleven months.

Q. From the time of getting your anchor off Quar-
391 antine to the collision were you continuously forward of the foremast? A. I was always in the degallant forecastle.

Q. Did you anchor off the doctors' station or off the Quarantine Islands? A. Outside of Quarantine. I can't say the distance.

Q. Do you stand watch? A. I do. When we are getting under way.

Q. Which watch are you in? A. Four to eight.

Q. Which watch are you in? A. Commander's
392 watch.

Q. Do you have four hours on and four hours off, or are you on all day and off all night? A. No. I am below from eight o'clock in the evening until four o'clock the next morning.

Q. What time did you go on deck on the morning of the collision? A. Four o'clock.

Q. How do you know it was four o'clock and not

half-past three or three o'clock? A. The man at the 393
wheel, the quartermaster, came and told me it was quarter of four.

Q. Did you go on deck right away? A. I did.

Q. Then you got on deck before four o'clock? A. Two or three minutes before four.

Q. Was the anchor then lifted? A. No.

Q. Which way was the vessel headed? A. I didn't notice.

Q. Was she pointing towards the city or towards the harbor? A. I didn't notice. 394

Q. How soon after you came on deck was the anchor raised? A. Just soon after I got on deck.

Q. How was the vessel headed when the anchor was raised? A. I can't say.

Q. Are the bells struck on board your vessel every half hour? A. Yes.

Q. Did you hear four o'clock sounded that morning? A. I did.

Q. Was the vessel then under way or at anchor? A. They were getting up the anchor. 395

Q. After the anchor was got up who was on deck on the degallant forecastle besides yourself? A. The mate and the boy and two lookouts, and several men--seven men.

Q. Did all these persons stay there until the time of the collision? A. Not all.

Q. How many? A. The two men on the lookout, the second captain, myself, the boy and the rest were dispersed about on the topgallant forecastle.

Q. Do you recollect that your vessel made a sharp 396
turn to port before passing Sandy Hook? A. I do not.

Q. Did you see any lights or beacons on Sandy Hook? A. Yes; on the land.

Q. Did you see them at the time you burnt the three blue, red and white signals? A. Yes, very clearly.

397 Q. How did these lights bear from you at the time you sounded the whistle for the signals to be burned? A. Right off our broadside.

Q. How long did the three signal lights continue burning? A. Two minutes.

Q. How soon after they went out did you hear the order to make the signal for the pilot boat? A. Perhaps two or three minutes after.

Q. Did you see the *Lisbonense's* sailing lights before or after the order to make the pilot boat signal?

398 A. I didn't notice.

Q. At the time the three signal lights were burned how far were you standing from the place where the lookouts was standing? A. About forty meters.

Q. How far were you from the second captain at the same time? A. About forty meters.

Q. Were you forward or abaft of them? A. Abaft.

Q. Did you hear the lookout or the second cap-

399 tain report the *Lisbonense's* lights? A. I did.

Q. When was it with reference to the burning of the signals you have mentioned? A. I didn't notice.

Q. What was the report you heard? A. A horn blast from the lookout.

Q. Did you then look to see what vessel was signaled thus? A. I did, and saw a light.

Q. What light, and how did it bear? A. A red light a little on our starboard hand.

400 Q. How many points or degrees? A. A point and a half, about two points—starboard ahead.

Q. When with reference to the lookout's report did you hear one blast of your vessel's whistle? A. I didn't notice.

Q. On the morning in question did your vessel use a search light? A. No.

Q. Electric light? A. No.

Q. What orders did you personally get after the 401
anchor was raised and stowed? A. The second captain told me to go and stay with the two lookouts there.

Q. Did you do so? A. Yes; and the second captain, the boy and the seven men were also there.

Q. Did you go there before you burned the three lights? A. Well, I was there before. The three signals were burned after.

Q. Did you get any other orders during that interval? A. No. 402

Q. Do you know what movements were made with your vessel's helm? A. No; I do not

ROUXEL, JOSEPH MARIE.

Witness:

WM. F. RANDEL,
Commissioner.

PIERRE MAXIMI, being called on behalf of La 403
Compagnie Générale, and being duly sworn, testifies as follows:

Q. What is your name, age, residence and occupation? A. Pierre Maximi; 31 years old; residence St. Brienne; I am a seaman.

Q. You are on board the *Champagne* which sails to-morrow? A. I am.

Q. And you expect to go with her? A. I do.

Q. What was your occupation on the 6th and 7th of December last? A. I was lookout on the *Champagne.* 404

Q. Do you remember about when the steamer left her anchorage on the 7th of December last? A. We were called at four o'clock to get ready, but I don't know what time we left.

Q. Do you remember passing Sandy Hook? A. Yes.

405 Q. Was it daylight or dark at that time? A. It wasn't quite daylight, but you could see quite clearly; the weather was dark.

Q. What do you mean by you could see quite clearly? A. I mean you could see the lights on shore very well.

Q. Where were you stationed as you were passing Sandy Hook? A. I was on the starboard side forward.

Q. What were you doing? A. I was looking out
406 ahead.

Q. After passing Sandy Hook do you remember discovering a light ahead? A. Yes. I saw a red light ahead on the starboard bow.

Q. How did it bear? A. Two points and a half on the starboard hand.

Q. What did you do when you discovered the light? A. We were two men together; my comrade gave a blast on his horn, and I went aft to the bridge and told them there was a light ahead.

407 Q. Did you; did anything happen afterwards? A. No. A moment or so after I was relieved.

Q. Where did you go after you were relieved?

A. I went further aft opposite the derrick of the anchors.

Q. How far is that from the cathead? A. Ten or twelve meters away.

Q. Did you remain there until the collision? A. Yes.

Q. Did you hear any whistles blown aboard the
408 *Champagne* before the collision? A. Yes.

Q. What whistles did you hear first, if you heard more than one? A. I heard three whistles.

Q. How far off do you estimate the steamer with which you afterwards collided with when you heard the three whistles? A. 160 to 180 meters about.

Q. In which direction was the other steamer at that time? A. It might have been four points to the

starboard. We could see that she was crossing our 409
course. ("Engrand" was the word used by the witness. Interpreter says means "squarely.")

Q. Did you notice any change of the engines after the three blasts were given? A. Yes; we felt the engine going astern by the movement of the ship.

Q. Did the two steamers afterwards collide? A. Yes.

Q. At the time or immediately after the collision did you know what steamer you had collided with? A. No. 410

Q. What became of the vessel? A. I didn't see her again.

Q. Did she stop? A. No; I didn't see her again.

Q. Did you hear any hail from her? A. No; didn't hear anything.

Q. What became of your steamer after the collision? A. We went astern and got entangled with a buoy.

Q. Did the *Champagne* go on with her voyage or come back to New York? A. We went and an- 411
chored and afterwards came back to New York.

Q. Where did you anchor? A. Not far from the other ship which is anchored there. I don't know what her name is.

Q. That is not the ship you came in collision with? A. No; she got up and cleared out at full speed, and we didn't see her afterwards.

CROSS-EXAMINATION by Sidney Chubb, Esq., on behalf of claimants and cross-libellants: 412

Q. When you got on deck, was your vessel under way? A. No.

Q. How soon after that did she start? A. I can't tell you exactly, but it was just the time necessary to get in the chain.

Q. Did you go on the cathead as soon as she began to move? A. Yes.

413 Q. Did you remain there until you reported the vessel? A. Yes.

Q. Did you see the lights on Sandy Hook as you went by? A. Yes.

Q. Did you see your vessel burn three signal lights? A. No, I was forward? I couldn't see on account of the bridge.

Q. Do you know that such lights were burned? A. Yes, I do.

Q. Did you hear the boatswain's whistle for the
414 lights to be burned? A. Yes, I did.

Q. At the time you heard the boatswain's whistle had you reported this vessel's light? A. Yes, I had.

Q. How long before the boatswain's whistle had you signaled her? A. I had the time to go to the bridge and come back when I heard the boatswain's whistle.

Q. What did you say when you went to the bridge? A. I said there's a red light, and indicated with my
415 hand.

Counsel for *La Champagne* asks permission to put one question in the direct examination.

Q. How was the wind blowing as the *La Champagne* passed out the channel, leading by Sandy Hook, from what direction? A. From astern, northwest, I think.

Q. Strong or light? A. It blew a good breeze?

416 CROSS-EXAMINATION resumed:

Q. What did you say when you went to the bridge? A. I warned the officer that there was a light on the starboard hand, and I indicated with my hand.

Q. What officer was that, and what did he say? A. Second lieutenant; he said all right.

Q. Did you go straight back to the cathead? A. Yes, directly.

Q. When you got back to the cathead how did the 417
light from Sandy Hook bear from you? A. About abeam—perhaps a little abaft the beam.

Q. When you got back had your vessel burned the signal for the pilot? A. Just as I got back the signal was burned.

Q. Did you hear any whistle from the other steamer? A. No.

Q. Did you hear any whistle from your own vessel? A. Yes.

Q. Describe it? A. Three blasts of the whistle. 418

Q. Was that the first signal you heard from your vessel after getting up the anchor? A. No. She had whistled for two small boats that passed up in the river.

Q. Was this the first whistle given by your steamer to the vessel you had reported? A. It was.

Q. How soon was this after you got back to the cathead? A. It was a little while before the collision.

Q Who ordered you to leave the cathead? A. 419
It was a sailor who took my place. I was relieved by another seaman.

Q. Were you relieved before the three whistles or after? A. After.

Q. What is the name of this seaman who relieved you? A. Kergal.

Q. What was the name of the second officer you reported to on the bridge? A. Mr. Blanqui.

Q. Do you know how far from forward edge of the stem the cathead, where you were, is? A. Per- 420
haps a meter and a half.

Witness testifies he does not know or is not sure of the second lieutenant's name.

Q. What kind of a buoy was it that you got entangled with? A. A black buoy.

Q. What part of your vessel struck it first? A.

421 Right opposite hold No. 3, the ship drifted on to the buoy.

Q. Which side of you ? A. Port side.

Q. Did you see the buoy ? A. I did. I did not see the ship strike it, when she struck it the first time.

Q. Did it have any number on it ? A. I didn't see any number.

his
PIERRE X MAXIMI
mark.

422 Witness:

WM. F. RANDEL,
Commissioner.

FRANCOIS LE GOUGEE, being called on behalf of Compagnie Générale Transatlantique, being duly sworn, testifies as follows:

Q. What is your name, residence and occupation ?

423 A. My name is Francois Le Gougee ; I am 33 years old and belong in Havre ; I come from Lannion ; I am a seaman.

Q. Are you now on board *Champagne ?* A. Yes.

Q. Do you expect to sail with her to-morrow ? A. Yes.

Q. Were you on board of the *Champagne* on the 6th and 7th of December last ? A. Yes.

Q. Do you remember about what time she left her anchorage in the lower bay ? A. I don't recollect

424 exactly ; I think it was about four o'clock.

Q. Where were you stationed and what were your duties ? A. I was on the bridge, and I was at the steam whistle.

Q. Did you remain at those duties until the time of the collision ? A. Yes.

Q. Did you recollect as you passed out Sandy

Hook, whether any signals were burnt on *Champagne?* A. Yes. 425

Q. What were they? A. Blue, white and red; the ship's signals.

Q. On which side of the ship? A. Starboard.

Q. How far apart about in distance? A. About fifteen metres apart.

Q. Do you recollect which way or from what direction the wind was blowing at that time? A. From astern, from northwest or west-northwest, I think. 426

Q. Strong or light? A. An ordinary cold wind.

Q. Was it yet daylight? A. No.

Q. How was the atmosphere with respect to sea lights? A. You could see, although the weather was a little dark.

Q. Do you know how the tide was running? A. Same as we were—an ebb tide.

Q. Do you remember of any signal having been given the pilot station after leaving Sandy Hook? A. Yes, we did—blue light. 427

Q. Do you remember discovering or hearing the report of a red light on the either bow? A. Yes, I I have knowledge that one was signaled on the starboard side ahead.

Q. Did you see the light? A. Yes, perfectly.

Q. Do you remember giving any signal by the steamer's whistle after leaving Sandy Hook? A. Yes, I do.

Q. What was it? A. Three blasts of the whistles two times. 428

Q. How far off do you judge the steamer with which you afterward collided with was at that time? A. At least three or four lengths of the *Champagne.*

Q. In which direction? A. A little on the starboard hand ahead—forward.

Q. Do you know anything about the course of the

429 channel? A. I think we had to make a little turn—the channel crooks coming in. I think we had to turn to starboard a little further on.

Q. Do you remember that the vessels collided? A. I do recollect.

Q. Did you know at the time of the collision or immediately afterwards what the names or the name of the vessel you collided with? A. No, not until we got back to New York.

Q. What became of the vessel after the collision?

430 A. It appears she follows her road to come into New York.

Q. Did she stop? A. Not so far as we know; because we looked for her.

Q. Did you receive any hail or signal from her after the collision? A. No. We heard at the time of the shock a few words aboard of her, but we could not understand.

Q. Were those words addressed to you or to any one aboard your ship? A. It was on both ships.

431 Q. Did you notice whether the other ship stopped or went on? A. My opinion is she went on, because we had no further knowledge of her.

CROSS-EXAMINATION by counsel for claimants and cross-libellants:

Q. Were you on the bridge when your vessel left her anchorage that morning? A. Yes.

Q. Who else was there? A. We were three quartermasters, two officers and the commander.

432 Q. Which officers were these? A. Second and third lieutenants and the commander.

Q. Did they all remain on the bridge until after the collision? A. Yes. Each one at his post.

Q. From the time of leaving your anchorage to the collision did any one else go on the bridge? A. No; only the people that belong on the bridge—

who are the ones that perform the service of the 433
bridge.

Q. How wide is the bridge at its largest part? A. It is the same width all the way across.

Q. How wide is that? A. Three or four meters.

Q. Is that the widest part? A. Four meters at most, at its widest part, but not at its passage-way.

Q. Is not this widest place the top of the wheel-house or captain's room, and is not the bridge itself just forward of the forward edge of the house-top? 434
A. It is.

Q. The passage is how wide? A. About two meters, between the front and the wheel-house.

Q. Were you yourself standing in the passage-way or on the wheel-house top? A. In the passage.

Q. Who else stand in the passage? A. Everybody who was on the bridge.

Q. Where did the man stand who steered? A. In the wheel-house.

Q. Is that on the same level with the passage you 435
were speaking of? A. You can see as well in there as outside.

Q. Was the commander in there? A. No, sir; he was on the bridge outside.

Q. Who was in the wheel-house? A. Only the man at the wheel.

Q. One man only? A. Only one.

Q. And the others you have mentioned, including yourself, out on the bridge? A. We were all on the bri ige looking out. 436

Q. Where did the commander stand? A. At the forward part of the bridge, alongside of us.

Q. How far from you? A. Three or four meters from me.

Q. Did any one else blow the whistle but yourself from the time you left your anchorage? A. I

437 think the pilot may have blown it without my noticing it.

Q. Were you not stationed there for the purpose of blowing the whistle when ordered? A. I was.

Q. Did you at any time leave your station before the collision? A. No.

Q. How do you sound the whistle when ordered? A. Only got to pull on a rope or cord.

Q. Has the cord a handle or ring? A. It has a brass handle.

438 Q. How many handles are there? A. Only one to this one.

Q. You stood as close to the handle as was necessary or as you could? A. Yes.

Q. Did you use your other whistle, the siren that morning? A. No; the after whistle only.

Q. Now how many whistles did you blow in all to this vessel with which you afterwards were in collision; and if so, of what kind? A. Three blasts of the whistle repeated, making six blasts in all, unless

439 the pilot did. There were tugboats going in and out, and he may have answered to them.

Q. Were any other signals blown from your vessel to the steamer you collided with except these six whistles or blasts? A. No; not that I know of.

Q. Did you hear the orders given your vessel's helm from Quarantine to the collision? A. I did.

Q. Who gave them? A. The pilot and the commander.

Q. Do the wheelsmen in every case get their orders

440 from the commander? A. The pilot gives the orders and the commander repeats them in French and the wheelsman answers back.

Q. Do you remember what the last order was to the helm before the collision? A. I was occupied at that time; I don't remember.

Q. When the lookout came aft and reported the other steamer's light, did you look at it? A. Yes;

we saw it at once, myself and others on the bridge. 441

Q. Did you also see the lights on the point off Sandy Hook? A. Yes, we did; they were plainly visible.

Q. How did the Hook lights bear from you when the lookout reported the light of the other steamer. A. Starboard, hard astern; we had passed Sandy Hook.

Q. How many points abaft the starboard beam were they? A. At that moment they were almost astern, perhaps a point on the starboard quarter. 442

Q. That is to say about seven points abaft the starboard beam? A. About that, a little on the starboard, I can't say how much, but abaft the beam.

F. Le Gougee.

Witness,

Wm. F. Randel,
Commissioner.

443

Joseph Briaud, called on behalf of La Compagnie Générale Transatlantique, being duly sworn, testifies as follows:

Q. What is your name, residence and occupation? A. My name is Joseph Briand; aged twenty-eight, and reside at Dinan, and am a seaman.

Q. You are one of the crew of the *Champagne* which sails to-morrow? A. Yes.

Q. Were you on board the *Champagne* on the 6th 444 day of December last? A. Yes.

Q. Do you remember what time she left her anchorage in the lower bay that morning? A. Four o'clock.

Q. What were your duties? A. I was at my post at the speaking tube on the bridge.

Q. Do you remember when the *Champagne* passed

445 out by Sandy Hook? A. Yes; about five o'clock that morning.

Q. As the steamer passed Sandy Hook, did you observe that any signals were burned? A. Yes; the company's signals.

Q. What were they? A. Blue, white and red.

Q. How far apart were they, about? A. About ten or fifteen meters from one light to another.

Q. On which side of the ship? A. Starboard.

Q. Do you remember from what direction the
446 wind was blowing at this time? A. About northwest, I think.

Q. Fresh or light? A. Blowing a good breeze.

Q. Do you know how the tide was? A. I can't say. I think the tide was ebbing.

Q. Was it daylight or still dark? A. It was dark.

Q. Where were you stationed at the time? A. At my post where I am at the time we manœuvre.

Q. Where is that? A. At the speaking tube on the bridge.

447 Q. Did you hear anything about that time of a light on a ship or anywhere about? A. We were notified from the degallant forecastle that there was a red light on the starboard hand.

Q. Do you remember whether this was before or after you had burned your signals in passing Sandy Hook? A. I don't remember whether it was before or after.

Q. Did you see the light yourself? A. I did see it after it was reported.

448 Q. How did it bear? A. About two points on the starboard hand.

Q. Was there any signal given on board the *Champagne* by a steam whistle? A. Yes.

Q. What was it? A. First one blast of the whistle was given, and then three blasts were given a little after.

Q. Did you hear any whistle from the other 449
steamer? A. No.

Q. How far was the other steamer off and how did she bear when the three whistles were blown? A. I can't say exactly, except at least two or three lengths of the *Champagne* on the starboard hand.

Q. Did you feel any reverse action of your propeller? A. Yes.

Q. Did you see the other steamer at the time of the collision? A. I did.

Q. In what direction was she going? A. She was 450
crossing our course.

Q. What became of the other steamer after the collision? She disappeared; we didn't see her any more.

Q. Did you hear anything from her? A. No.

Q. Did you know what steamer she was? A. I knew it was a steamer, but I didn't know her name.

CROSS-EXAMINATION on behalf of claimant and cross-libellants, by Mr. Chubb: 451

Q. What is your grade on board your vessel? A. I am a quartermaster.

Q. Were you at the speaking tube from the time you got your anchor until the collision. A. Yes; all the time.

Q. What does the speaking tube communicate with? A. The topgallant forecastle forward.

Q. Was it used from the time you left Quarantine until the time of the collision? A. Yes; we always use it in manœuvring. 452

Q. How many times was it used on that morning during that interval? A. I couldn't say.

Q. Why not? A. Because I don't recolleet.

Q. Was it used between the time the other steamer was reported and the time of the collision? A. I don't recollect.

Q. Whenever it was used were you the person

453 that used it? A. It was me, unless I wasn't there.

Q. Were you not there all the time on the morning in question? A. I was.

Q. When you used it, by whose orders did you use it? A. By the commander's.

Q. How far did he stand from you? A. Sometimes one distance, sometimes another.

Q. You were both on the bridge all the time? A. Yes.

Q. When the other steamer's light was reported
454 did you look at it? A. Yes; I saw it a little after.

Q. How did the Sandy Hook lights then bear from you? A. Sandy Hook was about abeam of us.

Q. At that time had your three signal lights been burned? A. Yes; when I saw it.

BRIAUD. JH.

Witness:

WM. F. RANDEL,
Commissioner.

455

FRANCOIS GAUTIER, being called on behalf of La Compagnie Générale Transatlantique, being first duly sworn, testifies as follows:

Q. What is your name, residence and occupation? A. Francois Gautier; age, 31; reside at Brittany, Cotes-du Nord; I am a seaman.

Q. You are now a seaman on board *Champagne* which sails for Havre to-morrow? A. Yes.

456 Q. Were you on board *Champagne* on the 6th and 7th of December last? A. Yes.

Q. Do you remember about what time the steamer left her anchorage below Quarantine on the morning of the seventh? A. About four o'clock.

Q. Where were you stationed? A. On the bridge.

Q. What were your duties? A. To obey the orders of the officers.

Q. You were a bridge quartermaster, were you not? A. Yes; on the lookout on the bridge subject to orders. 457

Q. Do you remember the fact that the steamer passed down the channel and by Sandy Hook? A. Yes.

Q. State whether or not any signal lights were burned aboard the *Champagne* at or about that time? A. Yes; the company's signal.

Q. What was it? A. Blue, white and red.

Q. Which side of the steamer? A. Starboard. 458

Q. How far apart were the lights? A. About fifteen meters between each light.

Q. Do you remember from which direction the wind was blowing about that time? A. Yes; from the stern; from a westerly quarter.

Q. Strong or light? A. Good breeze.

Q. Did you notice how the tide was running? A. No; I didn't notice.

Q. Did you see or hear the report of a light on either bow at or about the time of passing Sandy 459 Hook? A. Not at the time we passed, but a little after.

Q. Did you see the light? A. I did after.

Q. What was the report from the lookout? A. I heard a blast of a horn from the lookout.

Q. What was the blast and what did it mean? A. It meant that it was a ship if in the daytime or light; if at night, on the starboard hand.

Q. Was it daylight or still dark at this time? A. No; the weather was clear but dark. 460

Q. How did the light bear from you? A. About two or two and one-half points on the starboard hand.

Q After the company's signals were burned, did you notice if any other signal was given aboard the *Champagne*, and if so, what was it? A. Yes; another signal was made—a blue light forward.

461 Q. What was that for? A. It was a signal to call the pilot boat.

Q. Did you notice whether any signals were given by your steam whistles after leaving Sandy Hook? A. Yes.

Q. What was it? A. First, one blast of a whistle; after that—a moment after—three blasts of a whistle.

Q. Did you hear any whistle on board the other steamer? A. I did not notice any.

462 Q. How far off did you judge the other steamer was when you sounded three blasts of your whistle? A. About 300 meters.

Q. Did you notice any change in your propeller at that time? A. Yes; the vessel began to tremble. At the time that the three whistles were blown the order "Marche en arriere toute," or full speed astern, was given and repeated, and the ship began to tremble and jump.

Q. Did you see the other steamer at that time?

463 A. Yes.

Q. In what direction was she going? A. Crossing ahead of us.

Q. Did you feel the shock of the collision? A. Yes.

Q. What became of the other vessel? A. We did not see her again. We looked after her with the glasses, but we did not see her again.

Q. Did you hear any call or hail from her? A. I heard nothing from her whatever,

464 Q. Do you know whether or not she stopped at all? A. I don't know; I didn't see her again.

CROSS EXAMINATION on the part of claimants and cross-libellants by Mr. Chubb:

Q. Have you spoken to anyone this afternoon about this collision? A. No; I have been at work painting; they came to call me.

Q. Were you on the bridge all the time, from Quarantine to the time of the collision? A. Yes. 465

Q. Where you stood could you hear the orders to the engine room? A. Yes; by the telegraph.

Q. Could you hear the orders to the helm? A. Yes; if I paid attention.

Q. Do you now recollect what orders were given before the collision? A. I didn't hear any orders given to the man at the wheel before the collision.

Q. When the other steamer's light was signaled by the lookout how did the Sandy Hook lights bear from you? A. They were a little on the starboard quarter. 466

GAUTIER, FRANCOIS.

Witness:

WM. F. RANDEL,
Commissioner.

FRANCOIS MICHEL, called on behalf of Compagnie Générale Transatlantique, being duly sworn, testifies: 467

Q. What is your name, residence and occupation? A. Francois M. Michel; reside at St. Briene, France; I am a seaman.

Q. On what ship are you now engaged? A. *La Gascogne.*

Q. When does she sail and where does she go to? A. Saturday; for Havre.

Q. Are you going by her? A. Yes. 468

Q. What ship were you on in the month of December last? A. *La Champagne.*

Q. Do you remember of a collision which took place between the *La Champagne* and the steamship *Lisbonense* last December? A. Yes.

Q. When the *Champagne* sailed on that voyage state whether she sailed right out, or whether she

469 was detained by fog in the bay? A. She was stopped by fog.

Q. Do you remember how long she remained at anchor or at what time? A. I can't say exactly; I remember we left next morning with a tug to go ahead as a scout.

Q. How was the weather when you weighed anchor and started down the channel? A. The weather cleared up a little.

Q. What were your duties at the time the ship
470 left her anchorage and up to the time of the collision? A. My business was to look out ahead on both sides and notify if I saw anything.

Q. Where were you stationed? A. Forward, cathead, way forward.

Q. Do you remember of discovering a red light before the collision? A. Yes.

Q. Do you remember about where the *Champagne* was at that time? A. I can't say exactly; I don't know the channel down there.

471 Q. What did you do, if anything, after you saw the red light? A. We gave a signal with a horn that we saw a red light.

Q. Who blew the horn? A. I did.

Q. What signal did you give by it? A. Three blasts, meaning that there was a light to starboard.

Q. How did the light bear from the *Champagne*? A. I can't say exactly, the light was a great ways off, so as we saw it we signaled it; it was nearly ahead, but a good ways off.

472 Q. To whom were the signals that you have referred to given? A. To the commandant and the pilot at the bridge—the second officer told me to blow the horn.

Q. Did the *Champagne* at any time before the collision blow her horn, and if, state what it did? A. She did so—three blasts.

Q. Was there any change made with her engines

when the three blasts were blown? A. I heard the 473
telegraph to the engine operated, and by the trembling of the vessel I saw that the vessel was working astern.

Q. In which direction was the other steamer at that time? A. It was on the starboard hand almost ahead of us, we whistled and backed.

Q. What did you see or hear of the other steamer after the collision? A. I heard nothing.

Q. Did the other steamer stop? A. No. I didn't see her stop; I looked after her, but I didn't see her 474
again.

Q. Did you learn at any time before your return to New York what her name was? A. No, not until the sail day when we returned to the wharf when I heard her name mentioned.

Q. Do you know whether or not the other steamer offered to render any assistance? A. No. I didn't see anything.

Q. Did you hear anything from her? A. No. Absolutely nothing. 475

CROSS-EXAMINATION by Sidney Chubb, Esq., on behalf of claimants and cross-libellants.

Q. What signal lights did your vessel burn before the collision? A. I was looking out ahead. I didn't see any signal burned. I was occupied looking out ahead, and did not pay any attention to that. I have no knowledge of any.

Q. Did you hear the boatswain sound his whistle before the collision? A. I didn't pay any attention 476
to that.

Q. Did your vessel make any signal to a pilot-boat? A. She may have done so, but I didn't see it and have no knowledge of it.

Q. Did your vessel blow any signal that you heard? A. Yes, the *Champagne* whistled.

Q. How many signals did your vessel blow, how

477 many blasts, how many signals? A. Three blasts repeated, making six blasts.

Q. Did the other steamer blow any signals? A. I didn't hear any at all.

Q. Do you remember seeing lights on the point of Sandy Hook? A. I didn't notice any, I was looking out ahead, attending to my duty.

Q. What did you personally do after the collision? A. I remained there, at the time of the shock I drew back a little, but I remained there looking.

478 Q. For how a long time after the collision did you remain on the cathead? A. Perhaps five or six minutes.

Q. Did your vessel anchor after the collision? A. She got caught in a buoy. We anchored then in order to get clear from the buoy.

Q. Did your vessel offer any assistance to the other? A. She couldn't offer any to the other, because the other continued at full speed on her course.

479 Q. Where was the tug you have mentioned at the time of the collision? A. Ahead of us, but she had got out one side a little; at the moment of the collision she was not ahead of us.

Q. Where was she? A. I can't say exactly whether she was on the port side or on the starboard side, she was passing back and forth ahead of us.

Q. Which side of your vessel first struck the buoy you were entangled with? A. I didn't notice.

480 Q. Did you see what color it was? A. Black.

Q. When you blew on your horn how many men were within three meters of you? A. We were four men forward at the cathead and the second officer, about five people; the boy was there, but he had gone.

Q. Were there two men at each cathead and the officer between them? A. Yes, that's it; the officer

was walking back and forth between them from one side to the other without stirring from forward. 481

Q. Does the mouth of the speaking-tube lead up from deck to where you were standing? A. Yes, it touches us.

Q. Is the other end on the bridge? A. Yes.

Q. Has your vessel a steam siren on the forward side of the foremast? A. Yes.

Q. Was it used on the morning of the collision? A. I didn't hear it; I only heard the whistle.

MICHEL, FRANCOIS MARIE. 482

Witness:

WM. F. RANDEL,
Commissioner.

NEW YORK, April 4, 1891.
11 o'clock A. M.

FRANCOIS LE GONIDEC, being duly sworn, by interper, also duly sworn, says: 483

I live in Panepoil, France, and am a seaman. I was a seaman on the steamer *La Champagne* when the collision took place between her and the *Lisbonense.*

My duty was at the cathead on the lookout. The *Champagne* anchored in the lower bay on her way out on account of the thick weather, instead of going directly out to sea.

She left her anchorage towards four o'clock the next morning, Sunday. 484

We passed Sandy Hook, leaving it astern on the starboard side. I do not remember how the tide was running or the wind blowing at the time.

The signals of the company were made as we passed Sandy Hook. These signals were red, white and blue lights, burned simultaneously on the star-

485 board side by different persons, some distance from each other.

I remember seeing a red light on the starboard bow about two points and a half, which turned out to be on the steamer that we collided with. I was at the time at the cathead looking out ahead. It was not daylight yet. I can't say exactly where the *Champagne* was at that time, but we still had the Sandy Hook light in view. A green light was burned as a signal to the station pilot boat after we passed
486 Sandy Hook. After we passed Sandy Hook I don't know whether the *Champagne* changed her course or kept on her way out of the channel.

After we saw the red light the *Champagne* gave two blasts of her whistle and then a moment after three blasts of her whistle.

I can't say how long after these blasts of her whistle the collision occurred—not very long.

I can't say at what distance the other vessel was when these blasts were given—the other vessel was
487 still on our starboard. I noticed that at the time the three blasts were given there was a reversal of the engine of our steamer.

I saw the other steamer at the moment of the collision. The *Lisbonense* was going right squarely across our course, the forepart of the *Champagne* met the afterpart of the *Lisbonense* about opposite her mainmast. The engines of the *Champagne* were going at full speed astern at the moment of the collision. The *Champagne* was also going astern,
488 I mean that the engines were going astern, and that the ship was going astern a little. We saw the other vessel a short moment after the collision and she disappeared on her course and we didn't see her again.

I have no knowledge that the other vessel offered us any assistance. I recollect that the *Champagne* after the collision fouled a buoy. After getting clear of it we came back to New York.

CROSS-EXAMINATION by Mr. Chubb: 489

I didn't see any signals by the *Champagne* after the collision for assistance.

The *Lisbonense* was struck about ten meters from the stern. We had burned the company's signals when we first saw the red light of the other vessel. I can't say whether we had burned the signal to the pilot boat when we saw that red light.

We gave two blasts of the whistle, and a moment after three blasts to the other vessel, but I don't know in answer to your question how many blasts 490
made a signal.

Q. In all you gave five blasts to the other vessel
A. Yes, sir.

I have been at sea four years—four or five.

LE GONIDEC, FRANCIOS.

Sworn to before me, this 4th day of April, 1891.

SAML. H. LYMAN,
U. S. Commissioner.

491

NEW YORK, April 10, 1891.

JACQUES KERGALL, being duly sworn, by interpreter George H. Stetson, himself duly sworn, says:

I am over 21 years of age, and live at Havre, France. I sail on the *La Gascogne* for France tomorrow. I am a seaman on board of her.

I remember being on one of the libellants' steamers, *La Champagne*, in December last, when the collision occurred between her and the *Lisbonense*. 492

The *Champagne* was detained at anchor on the night in the river; I don't know just where, and got under way about half-past four o'clock the next morning. It was my second voyage; I was not ac-

493 quainted and don't recollect whether it was Sandy Hook we passed.

I remember discovering a red light on our starboard which appeared on the *Lisbonense*, with which we afterwards collided.

I came to the cathead on duty and my comrade told me the red light had just been reported.

The red light bore about three points on the starboard hand ahead. It was clear weather, very clear, but dark. I don't know, didn't pay attention
494 to the wind or tide.

I didn't pay attention to signals, being on the lookout. I noticed by the movement of the ship that the *Champagne's* engines were reversed before the collision.

I saw the hull of the other vessel, but not long, before the collision.

The *Champagne* was caught forward and the other about six meters from the stern.

She came right across our course. I didn't see or
495 hear of the *Lisbonense* after the collision, she was lost sight of and did not stop to see whether we wanted assistance.

I recollect that the *Champagne* fouled a buoy after the collision and came back to New York.

CROSS-EXAMINATION by Mr. Chubb:

I went to the port cathead. My comrade's name was La Gonidec. I didn't get there the same time as he did, because we men don't always know ex-
496 actly the time.

I was not sent to the cathead; it was my turn as lookout at five o'clock. I relieved Michel.

I was looking out ahead and didn't pay attention whether we burned any signals or lights. I don't know whether they did burn any signals. I didn't pay any attention.

I recollect very well that our vessel blew several

blasts of her whistle, but I didn't pay attention to 497
the number. I did not hear any signals from the other vessel.

I saw a tug before the collision. I don't know where it was at the moment of the collision, but it came immediately to our assistance. We made her take a line—I think from the port side. This was before we fouled the buoy. I think the buoy fouled us on the port side, aft. As nearly as I recollect, the buoy was black.

498

REDIRECT:

I recollect after leaving our anchorage that morning at 4.30 o'clock the steamship *Etruria* followed us out, and after the collision she came back to where we anchored and took our mail.

KERGALL, JACQUES.

[LA CHAMPAGNE RESTS.]

499

Counsel for the *Lisbonense* reads in evidence the following depositions of the master and second officer of the *Lisbonense:*

JOHN KING, witness on behalf of the steamship *Lisbonense*, owners and master, being duly sworn, deposes and says:

1 Q. My name is John King; my age forty-one years; my residence Liverpool, England; my occu- 500
pation master mariner. I have been master mariner for about twenty years, and have held Board of Trade's master certificate for that period.

2 Q. Had followed the sea for about eight years prior thereto. I have been in command of steam vessels since 1875.

3 Q. On December 6, 1890, I was master of the

501 British steamship *Lisbonense*. Said steamer was in good condition at that time.

4 Q. Her owners were Robert Singlehurst and others whom I do not remember.

Paper marked Exhibit A, offered in evidence by the owners of the *Lisbonense*.

Objected to as incompetent by the proctor for La Compagnie Générale Transatlantique.

Shown to witness.

502 5 Q. Witness says it is a copy in my own handwriting from the vessel's register, and shows the owners' names at the time it was made, but does not know whether any changes of interest therein have since been made. So far as I know none have been made.

6 Q. On the morning of December 7, 1890, where were you from and where bound? A. From Para to New York.

7 Q. At four o'clock on that morning where were
503 you personally? A. On the bridge.

8 Q. Had you at that time passed Scotland Lightship? A. No.

9 Q. About when did you pass Scotland Lightship? A. About 5.20, ship's time.

10 Q. How far did you pass it? A. About half a mile.

11 Q. How were you steering then? A. About N. N. W.

12 Q. Who were on duty? A. The pilot, second
504 officer, lookout man and the helmsman, and myself.

13 Q. What watch was there? A. Starboard watch.

14 Q. Were there any others in the starboard watch besides those you have mentioned? A. There were two others, two A. Bs. about the wheelhouse where we keep them always ready for a call.

15 Q. After passing Scotland Lightship how did

you steer? A. About N. W. ½ N. for the Swash 505
Channel. I wish to say that we were not steering compass courses; the pilot was steadying her by the channel lights.

16 Q. From four o'clock to the collision were you at any time steering on a compass course? A. No.

17 Q. When and for what reason was the change made from the first to the second heading you have mentioned? A. To get the ship in position for coming up the Swash Channel.

18 Q. When was this change made? A. Soon 506
after passing the Scotland Lightship.

19 Q. When with reference to any lights that you saw? A. When the lights of Swash Channel were in one or nearly so.

20 Q. Then was that done? A. We proceeded on that course.

21 Q. Did you alter your course at any time after that, and if so, for what reason? Yes, we altered the course for a steamer coming down.

22 Q. Which way did you alter it? A. We 507
altered our course to starboard; that is we ported our helm.

23 Q. Did you exchange signals with this steamer? A. Yes.

24 Q. What signals? A. One blast of the whistle.

25 Q. Did she pass you? A. Yes.

26 Q. Which side? A. Port side.

27 Q. After porting for this steamer what did you do? A. Steadied her back on her course again.

28 Q. Did you afterwards meet any steamer? A. 508
Not before we saw the lights of the *Champagne*.

29 Q. What was the first you saw of the *Champagne?* A. Mast-head and green light.

30 Q. How long was this after porting for the first steamer? A. Immediately after the first steamer had passed us.

31 Q. Where were these green and white lights at

509 that time from you? A. About four points on the port bow.

32 Q. Whereabouts did the vessel carrying them appear to be then? A. About off Sandy Hook.

33 Q. What was the next thing you saw on that vessel? A. The next thing we saw was part of her night signals or house signals, or whatever you call them?

34 Q. Describe these signals, please? A. I could not describe them.

510 35 Q. Describe what you saw? A. A blue light.

36 Q. What did you take it to indicate? A. I took it to indicate a steamer coming down the channel showing her company's lights.

37 Q. Did you know what company was indicated by the lights? A. No.

38 Q. Did the pilot tell you? A. No.

39 Q. Did your lookout make any report about this time, and if so, what? A. Steamer's masthead and green light on the port bow.

511 40 Q. Was this report answered by any one, and if so, by whom? A. Yes, by the second officer.

41 Q. What did he say? A. I think he said "all right," or "aye, aye."

42 Q. Was this report before or after or simultaneous with your own sighting of the green and white lights? A. A little after.

43 Q. How long after? A. A very short time after.

44 Q. Can you tell us how short? A. No, I could

512 not.

45 Q. Now will you state what was done on your vessel after seeing those green and white lights? A. We continued our course for some time, and finding the two steamers drawing nearer each other we gave one blast of our whistle, and we ported our helm.

46 Q. Did you get any answer to your one blast? A. Yes, one blast from the other steamer.

47 Q. Did she answer before or after you ported your helm? A. About the same time. 513

48 Q. How much did you swing under your port helm? A. About half a point to a point.

49 Q. When you had swung that much what did you then do with your helm? A. We steadied her.

50 Q. Why did you then steady her? A. To keep our ship in the proper place for entering the Swash Channel.

51 Q. Can you tell how far apart the vessels were when you then steadied? A. I could not tell exactly. 514

52 Q. What is the best you can tell? A. From half to three-quarters of a mile; something less than a mile at any rate.

53 Q. Go back to the time when you first sighted these green and white lights; how were your engines going then? A. Full speed.

54 Q. What speed does that give you loaded as you then were? A. About ten knots.

55 Q. How were the wind, weather and tide at that time? A. Wind about N. W.; the weather clear on the horizon; somewhat overcast overhead; the tide was the first of the ebb. 515

56 Q. After you steadied from the porting of half a point to a point, what did your vessel then do? A. Our vessel kept on that course as she was steadied.

57 Q. What course was that? A. We were not steering by compass; it was about N. W. by N.

58 Q. What were you steering with reference to? A. We were steering by the lights of the channel. 516

59 Q. The same lights you have already mentioned? A. Yes.

60 Q. How long did you continue on that steadied course? A. About five minutes, perhaps. I could not tell exactly as to time.

517 61 Q. What then happened? A. The next thing occurred was three whistles from the other steamer.

62 Q. Where was she then? A. She was quite close on our port side.

63 Q. About how far? A. About a ship's length.

64 Q. What did you understand the three whistles you heard to mean? A. That the other steamer was going astern, or rather that the engines of the other steamer were going astern,

65 Q. What did your vessel thereupon do? A.
518 Put our helm hard a-port.

66 Q. Did you give any orders to your engineers? A. Not then.

67 Q. Go on and state what next happened? A. The two ships appeared to draw much nearer together. By the way, I ought to state that there was a shout from the other steamer to go full speed ahead.

68 Q. When was this shout with reference to the three whistles? A. Very soon after.

519 69 Q. Can you tell us in minutes or seconds how soon after? A. I cannot.

70 Q. Give us your best judgment on the point? A. It may have been about half a minute.

71 Q. Go on and state what happened after your hearing the three whistles from the other vessel? A. I have already stated we put our helm hard-a-port, which we kept so until the other steamer was on our quarter and almost into us. We then put the helm hard-a-starboard, and that moment
520 the collision took place.

Q. When were you struck and how? A. On the port quarter, about twenty feet from the stern, forward, and nearly at right angles, but the *Champagne's* bow was inclined forward at a right angle.

73 Q. How deep into you did it go, and what damage was done by the blow? A. It went in about two feet and cut us down nearly to the water's edge.

74 Q. Did it knock overboard anything? A. Yes, 521
knocked overboard a lot of stores.

75 Q. Do you know the quantity and description of the stores? A. The description was bonded stores. I could not state the quantity—tobacco, liquors, &c.

76 Q. After the blow, what was done by your vessel? A. We stopped to ascertain the damage.

77 Q. What did you find out and how long did you stop? A. I found out we had been cut nearly down to the water's edge, and we stopped about six 522
or seven minutes I should think.

78 Q. Did you look for the other vessel that ran into you? A. Yes.

79 Q. What, if anything, did you see? A. We only saw the ship; nothing particular.

80. Did you see any signals of distress? A. Not any.

81 Q. Did you stop to see if any were made? A. Yes.

82 Q. Did you see whether the other vessel had 523
any assistance? A. We saw she had a tug in assistance.

83 Q. What did your vessel then do? A. We proceeded up the Swash Channel.

84 Q. Where to? A. To the Quarantine place, when we stop for quarantine, and anchored there.

85 Q. What did you then do? A. We looked around then to see what damage had been done. It was daylight then.

86 Q. What did you find out on that point? A. 524
We found that we were cut down to within two or three feet of the water, and several places torn away; and we also found a piece of the stern and bow plates of the other steamer jammed in the gap she had made.

87 Q. Did you know that you had this piece of the other steamer with you before you reached Quarantine? A. No.

525 88 Q. And after you passed Quarantine you came up to dock? A. Yes; to Martin's Stores.

89 Q. From the time when you first saw the lights of the vessel that afterwards ran into you to the collision did you change the speed of your engines?

Objected to, and question withdrawn.

90 Q. What changes, if any, in the speed of your engines, did you make from the time you
526 first saw the lights of the steamer which afterwards ran into you up to the time of the collision with that steamer? A. No change.

91 Q. What signals, if any, were given from your bridge to the engine-room during this same interval? A. "Stand by" was the only signal given

92 Q. When was this "Stand by" given? A. After we exchanged whistles.

93 Q. When did you first think that a collision was imminent? A. When she blew her three
527 whistles?

94 Q. Did you thereupon give any order to your engineer? A. No.

95 Q. Why did you not give any? A. We were going at full speed, and that was what we wanted to do.

96 Q. Why did you want to go at full speed then? A. We saw it was the only chance of clearing the other steamer; and, moreover, they had hailed us to go full speed.

528 97 Q. You have stated that just before the collision you put your helm hard-a-starboard. Why did you do that? A. To throw my quarter away from the other steamer?

98 Q. For what part of your vessel was the other vessel then heading? A. Our quarter.

99 Q. Will you state the dimensions of your vessel? A. Two hundred and seventy feet long, be-

tween perpendiculars; beam about thirty-two or 529
thirty-three feet; draught at that time about nineteen and a half feet; depth of hold about twenty-three feet.

100 Q. What is her rig? A. Schooner rig.

101 Q. At what portion of the vessel's length is her bridge? A. A little before the middle.

102 Q. How does she steer? A. By steam.

103 Q. Where does the helmsman stand? A. Coming in and out of port he stands on the top bridge.

104 Q. Did he stand there on this occasion? A. 530
Yes.

105 Q. On the same level as the officers on the bridge? A. Yes.

106 Q. Will you describe your engines? A. Our engines are triple expansion.

107 Q. State their dimensions? A. I cannot.

108 Q. Do you know their horse-power? A. One hundred and seventy-five.

109 Q. What steam pressure do you carrry? A. I am not certain; about 150 or 160. 531

110 Q. Do you have a single propeller? A. Yes.

111 Q. Right handed or left handed? A. Right-handed.

112 Q. When did your pilot board you? A. Pilot boarded about half-past two in the morning.

113 Q. Do you know his boat? A. No. 18.

114 Q. From the time of passing Scotland Light to the collision where was he? A. He was on the bridge from the time he came aboard.

115 Q. Where were you and the second officer 532
during the interval I have mentioned? A. On the bridge also.

116 Q. Describe the place of collision. A. It was just the entrance of the Swash Channel, where the leading lights of the main channel and the Swash Channel intersect.

117 Q. How did the leading lights of the main

533 channel appear at the time of the collision? A. Nearly in line; the upper one opening a little to the right.

118 Q. Which do you mean by the upper one? A. The highest.

Counsel for the *Lisbonense* states that his witness are to sail early on Saturday morning, and that he therefore holds himself and his witnesses at the disposition of counsel for *La Champagne* for the balance of to-day and to-
534 morrow; but that he cannot undertake to delay the vessel's sailing to complete the testimony.

Counsel for *La Champagne* says that he has an engagement in the Circuit Court on Friday, and subject to that engagement is ready to proceed.

119 Q. What vessel are you now in command? A. The *Cearense.*

535 120 Q. When and wherefor does she sail? A. She sails on Saturday for Para.

CROSS-EXAMINATION by Counsel for *La Champagne:*

121 Q. Where were you when you took your pilot aboard? A. About fifteen miles to the southward of Sandy Hook Lightship.

122 Q. Had you any previous acquaintance with the pilot? A. No, sir.

123 Q. What is his name? A. Winter.

536 124 Q. Have you seen him since you reached port, after the collision? A. Yes.

125 Q. Have you had any conversation with him? A. Yes.

126 Q. What was it? A. Nothing of any importance.

127 Q. Did you talk of the fact attending this collision? A. Yes.

128 Q. Have you seen the report, or a copy of the 537
report that he made to the Pilot Commissioners? A. No.

129 Q. Did he tell you of the contents of the report? A. No.

130 Q. At the time you took the pilot aboard, for what point was your ship making? A. Making for Sandy Hook Lightship.

131 Q. Were you in sight of the New Jersey shore? A. No, sir; we saw nothing.

132 Q. What was the first light that you made? 538
A. The first light that we made was Neversink.

133 Q. What light did you then make? A. The Scotland and Sandy Hook Lightships.

134 Q. Did you know these two lights yourself or did the pilot tell you what they were? A. I knew them myself.

135 Q. How long have you been sailing in and out of the port of New York. A. About two years.

136 Q. Can you recollect how many voyages you have made in and out of the port of New York? A. 539
About six.

137 Q. In the same steamer or other steamers than the *Lisbonense?* A. In the same steamer.

138 Q. Does the *Lisbonense* make but three voyages a year? A. No, she makes many more than three, but she is not always in this trade. Our trade is from Liverpool to Brazil as well as from Brazil down here.

139 Q. You claim to be familiar with the channels in the harbor of New York, and channels about the 540
entrance to the harbor? A. Not very familiar.

140 Q. Then, in coming into New York on the voyage from which the collision with the *Champagne* occurred, you relied very largely upon the advice of the pilot? A. Yes.

141 Q. When you saw the company's signal lights on the *Champagne* did the pilot tell you what they were? A. No.

541 142 Q. Did you ask him what they were? A. Yes.

143 Q. What did he say? A. He said it was some steamer's home signals.

144 Q. Those were his words or nearly his words? A. Yes. I don't think he knew.

145 Q. He did not state or convey to your mind the idea that they were the signals of one of the steamers of the French line? A. No.

146 Q. At what point of time or where, before the
542 collision, did you learn that the steamer, that afterwards proved to be the *Champagne*, was one of the steamers of the French line? A. At the time of the collision we saw it was a four-masted steamer with two funnels. The pilot told us then that he thought it was one of the French Transatlantic steamers, as he did not know any other steamer of that rig with two funnels sailing about that time.

147 Q. This was early Sunday morning. A. Yes.

148 Q. Are you familiar with the channels taken
543 by heavy draughted transatlantic steamers from New York to Europe, from the Narrows on their way to sea? A. No.

149 Q. Did you make any inquiry as to that fact of your pilot on the morning in question? A. No.

150 Q. Did he make any remark about the course of heavy draughted vessels out of the harbor of New York on the morning in question? A. I don't remember his making any remark.

151 Q. When you saw the signal lights of *La*
544 *Champagne* had you no curiosity to know what steamer she was? A. None whatever.

152 Q. Please explain why not? A. I was not interested in other ships. They had no interest for me whatever.

153 Q. You knew that your ship and the *Champagne* were in comparatively shoal water, did you

not? A. No, I was under the impression that there 545
was plenty of water.

154 Q. Are you still under that impression? A. Yes.

155 Q. Did you not know, and do you not now know, that the ordinary channel for heavy draughted steamers bound from New York to Europe is through the main or Bayside Channel and thence through Gedney's Channel to sea? A. Yes.

156 Q. Did you know that that was so on the morning in question? A. Yes. 546

157 Q. Please explain why you had no curiosity to know what steamer this was that you were meeting? A. I could not explain the reason.

158 Q. Would it not, in your judgment, be important to know what steamer you were meeting if it be the fact that heavy draughted steamers bound from New York to Europe took a channel the course of which crossed your course? A. No; other steamers may use that channel as well as deep draughted steamers. 547

159 Q. Where were you when you first noticed the effect of the ebb tide? A. We felt very little the effect of the ebb tide. The only perceptible time was when we stopped after the collision.

160 Q. Did you meet with any tugs between the time you passed the Scotland Lightship and the collision? A. I don't remember meeting any.

161 Q. Were you not hailed by a tugboat and asked if you wanted to be taken in tow or needed the assistance of a tug? A. Not to my knowledge. 548

162 Q. You stated in your direct-examination that after you made the lights of *La Champagne* you observed that their bearing did not alter. How far apart were the two steamers when you observed that? A. We observed that when we blew whistles.

163 Q. How far apart in your judgment were the two steamers at that time? A. Maybe three-quarters of a mile.

549 164 Q. How far do you judge your distance from the *Champagne* when you first saw her masthead and side light? A. About two miles.

165 Q. You have stated, I believe, that *La Champagne* was abreast of Sandy Hook then? A. Somewhere abreast of Sandy Hook.

166 Q. And where were you with reference to the Scotland Lightship? A. I should think we were about half way between the Scotland Lightship and the place of collision.

550 167 Q. How far in distance would you judge your position at that time from the place of collision? A. Something over a mile.

168 Q. Is it not a fact that when a mariner observes a green light to his red light, or a red light to his green light, does not alter its bearing, a warning is conveyed that the two vessels are moving upon converging courses, and that there is danger of collision? A. Yes.

169 Q. What is the tonnage of your vessel? A.
551 Net tonnage 1,035.

170 Q. Gross tonnage? A. 1,595.

171 Q. What is her draught when loaded? A. Twenty one feet three inches mean.

172 Q. The last port that you touched at before the collision was some port in Brazil? A. Para, Brazil.

173 Q. What was her draught on leaving Para? A. If I remember rightly it was twenty feet ten inches.

552 174 Q. You had burned considerable coal on the way up? A. Yes.

175 Q. About how many tons? A. About two hundred.

176 Q. You include her coal bunkers and her supply of coal in the net tonnage or in the gross tonnage? A. The net tonnage is exclusive of the coal space and the supply of coal.

177 Q. When you speak of her draught when 553
loaded you have in mind a full supply of coal and a full supply of cargo? A. Yes.

178 Q. How many tons of coal did you have when you arrived in New York? A. About a hundred.

179 Q. Did you have a full cargo when you left Para? A. Not quite.

180 Q. What did it consist of? A. Sugar and rubber, a few other things. Had a thousand tons of sugar.

181 Q. What was your vessel drawing at the time 554
of the collision? A. About nineteen six.

REDIRECT: None.

RE-CROSS:

182 Q. How did the *Champagne* bear from your vessel when you heard the three whistles? A. Nearly abeam; a little before the beam.

183 Q. Did you see what her heading was with reference to the course of your ship? A. I could 555
not tell. I could only see her green light at that time.

JOHN KING.

DEPOSITION OF BOSWELL BOYCE.

184 Q. I was second officer on board the *Lisbonense* at the time of the collision.

185 Q. I have held a Board of Trade master's cer- 556
tificate since 1878. I have followed the sea for about twenty-five years.

186 Q. From passing the Scotland Lightship to the place of collision I was on the bridge.

187 Q. What was the first you knew of the steamer that afterwards ran into you on the mor-

557 ning of Sunday, December 7, 1890? A. By the report of the man on the lookout.

188 Q. Was the report answered, and if so, by whom? A. I answered "all right."

189 Q. At that time how was your vessel steering? A. Steering for the range lights.

190 Q. What range lights? A. Swash Channel range lights.

191 Q. When you got the lookout's report did you look and see what was reported? A. Yes.

558 192 Q. What did you see? A. I saw a green light and a masthead light which I took to be a steamer.

193 Q. Whereabouts? A. About four points on the port bow.

194 Q. Off what place did the steamer seem to be? A. Off Sandy Hook.

195 Q. What was done on your steamer after the lookout reported this light? A. Shortly after the pilot gave the order to blow one whistle.

559 196 Q. Was this done? A. Yes, sir.

197 Q. Was it answered? A. Yes, sir, by the other steamer.

198 Q. What answer? A. One whistle.

199 Q. What was then done on your vessel? A. The pilot then gave orders to port a little, which was done.

200 Q. How much did she swing under the porting? A. She swung about a point.

201 Q. What was then done? A. We steadied.

560 202 Q. Steadied in what direction? A. To starboard.

203 Q. When you were steadied what were you heading for? A. I did not notice; I was watching the steamer.

204 Q. How long did you continue steadied? Till the other steamer got close abeam.

205 Q. What did she or you then do? A. When she got about abeam she blew three whistles.

206. Q. What did your vessel then do? A. The pilot said, "Hard-a-port." 561

207 Q. Was that done? A. Yes.

208 Q. What was next done? A. Just before the other steamer struck us the pilot called out, "Hard-a-starboard."

209 Q. What part of you was the other steamer heading for when the pilot called out "hard-a-starboard"? A. Right for the port quarter.

210 Q. Was the order "hard-a-starboard" obeyed? A. Yes. 562

211 Q. What next happened? A. The steamer struck us.

212 Q. When did you first think there would be a collision? A. Just about when the other steamer blew three whistles.

213 Q. If you had been in command of the *Lisbonense* at the time the other steamer blew three whistles what would you have done with her?

Objected to as incompetent and inadmissible. 563

A. I would have gone ahead at full speed as we were going.

CROSS-EXAMINATION:

214 Q. What time did you go on the bridge on the morning of the collision? A. At four o'clock.

215 Q. Did you remain on the bridge until the collision? A. Yes.

216 Q. Did you see any colored lights besides the regulation lights in *La Champagne?* A. A blue light. 564

217 Q. Did you have any conversation with the pilot or hear him say anything about this light? A. I had no conversation with him but I heard him tell the captain it was a blue light.

218 Q. Did the pilot say anything to the captain about what line the steamer belonged to? A. No, sir, not till after the collision.

565 219 Q. How far apart were the two steamers at the time you saw the blue light on the *Champagne?* A. About a mile and a half to two miles.

220 Q. Did you continue to watch the bearings of the masthead and side lights of the *Champagne?* A. Yes, sir.

221 Q. How did they continue to bear, or what difference in bearing was there from the time you sighted them until you blew your whistle? A. They did not alter very much.

566 222 Q. In which direction did their bearing alter? A. Drawing to our beam.

223 Q. Then, if I understand you, the masthead and side lights you saw on the *Champagne* broadened out toward your beam? A. Yes.

224 Q. About how much?

(Witness hesitates.)

225 Q. Did the lights of the *Champagne* continue to bear in the same direction from your ship from
567 the time you sighted them until the collision? A. They seemed to bear about the same.

226 Q. How long after you sighted the lights on *La Champagne* did you become satisfied that her lights continued to bear in the same direction? A. About ten to twelve minutes.

227. How far apart were the two ships, then?

Witness, after having question explained, evidently does not understand it.

568 228 Q. How did the lights on *La Champagne* bear from you when you first saw them? A. About four points on our port bow.

229 Q. How did they bear when you gave your signal of one whistle? A. About four and a half points on our port bow.

230 Q. When did you port your helm after sighting the lights of *La Champagne?* A. Shortly after the light was reported.

231 Q. Was that before or after you had blown your whistle? A. The order to port was given as the first whistle was blown. 569

232 Q. How long after that was it that you heard the whistle from *La Champagne?* A. Immediately she answered us.

233 Q. Did you port your helm before you got the answer from *La Champagne*? A. Yes, we ported when we blew one whistle.

234 Q. How long had you been under a port helm when *La Champagne* answered? A. Not very long. 570

235 Q. And you think that she bore about four and a half points on your port bow at that time? A. Yes.

236 Q. Had you any apprehension of a collision at that time? A. No.

237 Q. Why not? A. We expected her to port.

238 Q. Do you know the course of transatlantic vessels to Europe out of the port of New York? A. No, sir. 571

239 Q. Do you not know that they take certain channels and fair ways out to sea? A. We came down the main channel.

240 Q. And from the main channel where? A. I do not know.

241 Q. If that be so, why did you state in your direct-examination that if you had been in command of the *Lisbonense* you would have kept on at full speed? A. I would have kept on knowing that he was going astern by blowing his three whistles. 572

242 Q. How did *La Champagne* bear from your ship when she blew her three whistles? A. About abeam.

243 Q. How far was she off? A. Barely a ship's length off.

244 Q. And how was her heading with reference with the course of your ship? At right angles? A. Yes, at right angles.

573 245 Q. When was it that *La Champagne* blew the three whistles? A. Shortly before the collision.

246 Q. Where was your ship and where was *La Champagne* when she blew the three whistles? A. *La Champagne* was right abeam of us.

247 Q. And heading at right angles with us? A. (No answer.)

248 Q. Will you take the two models, the larger one representing *La Champagne* and the smaller the *Lisbonense*, and place them
574 in the position they were in when you first sighted the *Champagne*?

Question objected as assuming facts not in evidence.

A. Could not tell which way she was going.

249 Q. Place the model representing the *Lisbonense* on the paper and the model representing *La Champagne* in the direction in which you saw the lights when you first discovered them? A.
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250 Q. Place the models in such a position as to show the bearing of *La Champagne's* light when you first ported your helm? A. 577

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251 Q. Now place the models in the relative positions in which the two vessels were when you heard *La Champagne's* three whistles, and when as you state you observed the heading of *La Champagne*. A. 585

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Counsel for the *Lisbonense* and owners and master states that he has in readiness to be sworn and examined Joseph Barstow, lookout on the *Lisbonense*, and Thomas Henry Williams, helmsman on the *Lisbonense* at the time of the collision, named in the notice of examination; that he does not consider their evidence of importance to the issues in these cases, but offers to call them before the Notary and have them sworn as witnesses for the *Lisbonense* if the counsel for La Compagnie Générale Transatlantique desires to cross-examine them. 593 594

Counsel for La Compagnie Générale Transatlantique states that he does not care to exercise the privilege involved in this offer.

Exhibit "A" of Owners of the *Lisbonense* offered in evidence. D. L. B.

Hugh Hathorn Nicholson ..... 4 shares

Joint Owners.

Robert Brocklehurst,
Robert Singlehurst,
George William Brocklehurst,
Henry Brocklehurst,
Septimus Brocklehurst, ... 36

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Eliza Jane Hills 12
Robert Singlehurst 3
Robert Brocklehurst 3
George William Brocklehurst 3
Henry Brocklehurst 3

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596

21st July, 1890.

I hereby certify that the several persons above mentioned are on this 21st July, 1890, registered owners of the respective number of shares in the ship within described, set opposited their respective names.

(Signed). GEO. THOMAS,
Asst. Registrar,
Port of Liverpool.

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EDWARD WINTERS, being sworn and examined as a witness for the *Lisbonense*, testifies:

By Mr. Chubb: Q. What is your occupation? A. Pilot.

Mr. Jones: If your Honor please, it is assumed by my adversary that I have waived the calling of the other witnesses who were on duty on the *Lisbonense*. He said he had some witnesses present
598 that he would call if I wished to cross-examine.

The Court: You are not called upon to make any response unless he makes some definite offer.

Q. What sort of a pilot are you? A. Sandy Hook pilot.

Q. How long have you been a Sandy Hook pilot? A. One year and nine months.

Q. How long have you followed the sea? A. Twelve years.

Q. In what capacities? A. Boat keeper, boy on
599 pilot-boat, and so forth.

Q. On December 6th and 7th of last year on what vessel were you pilot? A. The steamship *Lisbonense*.

Q. Do you remember when you boarded her? A. About 2 o'clock in the morning.

Q. Of what day? A. December 7th.

Q. Where was she when you boarded her, about? A. About 18 miles south of east of Scotland Lightship.

600 Q. Do you remember passing the Scotland Lightship? A. I do.

Q. Who were on the bridge then? A. The captain and the officers, wheelsmen.

Q. Where were you? A. I was on the bridge myself.

By the Court: Q. Were you the pilot in charge coming up? A. Yes, sir.

By Mr. Chubb: Q. Was any one forward on that 601
vessel? A. A man on the lookout; I don't know, one or two.

Q. Go on and state in your own language what happened after passing the Scotland Lightship. A. We passed the Scotland Lightship shortly before 5 o'clock, steering about north-northwest to get the Swash Channel lights in range; ship hauled up northwest half north about 10 or 15 minutes past 5; about 10 minutes we made a steamer's light about four and a half points on the port bow, masthead 602
and green light; we kept on our course; about five minutes afterwards blew one whistle to let the steamer know I intended to pass ahead of him; shortly after the steamer answered with one whistle; we ported a little at the same time, about a point. Blowed one whistle, and she answered a few minutes after with one whistle; we ported a little; the *Champagne* kept getting closer to us all the time.

By the Court: Q. Do you know what course you were on at the time you gave your whistle? A. I 603
don't know. I know my course; we were steering about northwest half north, and ported a little and made it about northwest by north half north to give the other steamer a wide berth.

Q. Ported about one point? A. About one point; yes.

Q. How far apart did you estimate the vessels were when you gave your one whistle? A. I should judge about a mile. The other vessel kept coming at us very fast; she didn't port and didn't seem to 604
slow, the bearings being about the same; shortly after she struck us; struck about twenty feet from our port quarter.

By Mr. Chubb: Q. Did you hear any signal after the one you have mentioned of the single blast? A. Not any. She blew three whistles to let me know she was going full speed astern.

605 By the Court: Q. You heard the three whistles? A. I heard the three whistles, and she was very near us.

By Mr. Chubb: Q. How did she bear from you then? A. About west.

Q. How many points? A. Fully four and a half points on the port bow; maybe five. I didn't take the exact bearing; it may be five; all of that.

Q. What did you understand the three whistles from the other vessel to mean? A. To let me know
606 she was going astern.

Q. What did you do then? A. Nothing but go full speed ahead; we was going all the time. I changed the course then when we were very near across the steamer, to let our quarter go from the other steamer, hard a-starboard.

Q. How far off was the other steamer when this change of course occurred—when the order to hard a-starboard was given? A. The other steamer was about 50 feet off.

607 The Court: He hasn't said he gave the order hard a-starboard.

The Witness: I give the order hard a-starboard.

Q. Did you give the order hard a-starboard? A. I sung out "hard a-starboard" to let our quarter swing from the other steamer.

Q. What was your object in giving that order? A. To let our quarter swing away from the other steamer.

Q. How was the helm at the time you gave the
608 order? A. A little to port; very near steady.

By the Court: Q. Which was fifty feet off, the bow? A. The *Champagne* about fifty feet from the *Lisbonense*.

Q. From what part of the *Lisbonense*? A. From amidships.

Q. Then you had already lapped her? A. We was crossing her all the time, going full speed.

Q. You were not ahead of her stem all the time? 609
A. Not quite; not altogether.

Q. But you say when you gave the order "hard a-starboard," you were about half way past the stem? A. Yes, sir.

By Mr. Chubb: Q. Your stem had already gone beyond her course? A. Certainly.

By the Court: Q. Your amidships was about directly ahead of the *Champagne*? A. Yes, sir.

By Mr. Chubb: Q. When you first saw this vessel's light whereabouts were you with reference to 610
the Scotland Lightship and the point where the Main or Ship Channel and the Swash Channel intersect; where they cross? A. About at the end of the inner buoy of the South Channel.

By the Court: Q. Outside of it or inside of it? A. Just past it to the north of it. (The witness indicates on the chart with a letter L a spot a little inside of the inner buoy of the South Channel as the place of the *Lisbonense*.)

By Mr. Chubb: Q. Now show where the *Champagne* was at the same time; that is to say, when 611
you first sighted her?

By the Court: Q. Did you form an opinion at the time where she was? A. Yes. I think when I first saw the *Champagne* she was about here (marking on the chart about at the letter B, about north-northwest from the Sandy Hook beacon.)

By Mr. Chubb: Q. Did you see the other vessel burning any signals? A. I did.

Q. When did you see it with reference to first 612
sighting her? A. Shortly after sighting her.

Q. Did you see what the signals were? A. No, sir.

Q. What did you take them to be? A. Some steamer's signals; I couldn't tell what they were, what company's ship.

613 Q. What did you think they were burned for? A. I couldn't tell.

Q. What was your opinion? A. Some steamer going out burning signals.

Q. For what purpose? A. To telegraph to the Hook. I understood they were night signals.

Q. Did you notice the colors of the signals? A. I did not.

By the Court: Q. You saw then she was in the Ship Channel, did you? A. I did.

614 By Mr. Chubb: Q. Did you watch the light after that? A. I watched the light all the time.

Q. And how far did you go when you made the whistle signal you have mentioned? A. Went about five minutes after that.

Q. What speed was your vessel making? A. About nine knots.

Q. How was the wind and the tide? A. The tide was about an hour ebb, going to the eastward.

Q. Do you know at that time what the direction
615 of the tide past the point of the Hook is? A. Setting to the eastward.

Q. Can you give us its course anything more definitely than that? A. About east.

Q. Where you were how had you the tide? A. On our port beam.

Q. Do you know anything about its velocity? A. About two miles an hour.

Q. What was your object in blowing the signal of one whistle? A. To let the steamer know that I
616 intended to pass ahead of him, had the right of way.

Q. What did you understand his answer of one whistle to mean? A. "All right."

Mr. Jones: I submit that this is hardly admissible, that the law fixes the meaning of the signal.

The Court: I allow that.

Q. By the custom among pilots and seafaring men 617
in this port, if the other steamer had not wished you to understand it to be all right what signal should you have expected?

Objected to, that the law determines that.

The Court: Ask the question directly as to whether or not there is a custom.

Question withdrawn.

Q. What is the custom of pilots and seafaring 618
men in this port where it is wished to agree to a course proposed by signal on the whistle of another vessel?

The same objection.

Q. What is the customary way of indicating an agreement by the pilot of one vessel to the pilot of another vessel as to a course first proposed by the latter vessel by means of his whistle?

The same objection. Question withdrawn. 619

Q. Is there any custom among seafaring people in this port to indicate assent to a course proposed by another vessel to the first vessel by means of its whistle? A. There is.

Q. Now state it, please? A. When vessels is crossing, two vessels meeting end on almost, the man that wishes to pass to the starboard side blows one whistle and the other vessel responds with one; that means both vessels pass to starboard, keep to 620
the right, each vessel to keep to the right.

Q. That is hardly an answer to my question. Is there any way which pilots in this port have of expressing assent to or dissent from prior signals made to them by another vessel's whistle? A. Yes.

Q. Now state what it is? A. Do you mean in a case like this—two vessels crossing at right angles?

Q. No, I don't mean any particular case.

621 By the Court: Q. Do pilots have any way of indicating dissent from or assent to a previous signal they have heard from another vessel? A. By whistle, yes.

Q What is it? A. If the first man blows one whistle and the other man answers with one that means assent; the first man blows one and the other answers with two that means dissent.

Q. Supposing one blows two and the other blows two? A. That means consent, all right—as long as
622 they both blow the same whistles.

Q. Suppose one man gives one and the other gives three; what does that mean, do you think? A. They don't generally do that.

Q. Suppose the first vessel gives one whistle and the other vessel gives three? A I never seen a case of that kind.

Q. You wouldn't know what that meant? A. He wouldn't have any reason to blow three.

Q. Suppose you did hear three? A. That would
623 mean he was going astern.

Q. Do you think that? Is that what you would infer from it? A. That is what I would infer, that he was going astern if he blew three whistles.

Q. Do you understand that to mean assent or dissent; or doesn't it mean anything about it? A. It means neither.

Q. Then it is not simply giving different whistles that means dissent; if one gives one and the other two it means they don't agree? A. They don't agree,
621 that is it.

By Mr. Chubb: Q. If at the time you blew one whistle to *La Champagne* her captain or pilot had wanted you to go under their stern, what whistle should you have expected from them?

Objected to.

The Court: I allow it to show under what system he was navigating.

A. Two whistles. 625

Q. How were your engines going at the time you gave the one whistle? A. Full speed.

Q. How was the night? A. Clear.

Q. How as to light—was it daylight then? A. Dark.

Q. Do you know what time the sun rose on that morning?

The Court: We can determine that.

Q. When did you first think that a collision was imminent? A. About five minutes after I saw the 626 other light.

Q. When was that in reference to any of the orders which you have stated you gave on your vessel? A. What was that?

Q. When was it with reference to any of the orders which you have stated you gave on your vessel that you first saw a collision was imminent? A. Oh, when I gave the order to hard astarboard.

By the Court: Q. That is, when you were half way past? A. Yes, sir. 627

Q. The bridge was already past the stern of the *Champagne* at that time? A. That is right.

Q. Didn't you expect collision before that? It was possible to have a collision I thought possibly before that if the other ship didn't slow or port a little.

Q. What was the situation, do you think, when you heard the three blasts from *La Champagne?* A. Abot right—pretty near right angles.

Q. Do you mean she was nearly abeam of you at 628 that time? A. Very near.

Q. How far away should you think she was from you? A. Shortly before the collision?

R. No; when you heard the three blasts of the *La Champagne?* A. About 100 feet.

Q. Don't you think she would have cut your stern right off if she hadn't stopped until that time? A. She would

629 Q. But she didn't, did she? A. No, sir.

Q. Then she must have been more than 100 feet? A. I say about that. I can't tell of a dark night; I should judge it to be about 100 feet away from me.

By Mr. Chubb: Q. Where did the collision occur? A. What is called the Bay Cut; with the Swash light, the northernly, just open to the southern light.

Q. Show on the chart the lights you mean? A.
630 (the witness indicates on the chart.) Very near this red buoy, just about across this line here is where the collision was.

By the Court: Q. That is just about the junction of the two? A. Just about the junction, right in the Cut, what is known as the Bay Cut.

Q. Does that mean the cutting of the courses? A. There is a turn right here where you cut in here.

Q. Where in coming in over Gedney's Channel
631 you come to port? A. Yes, sir; cutting into the main channel at that turn, very near on the Swash range.

By Mr. Chubb: Q. Mark on the chart where you think the collision occurred? A. (The witness marks a spot on the line of the main channel, a trifle to the eastward of the range of the Swash, with a large L.)

Q. How did you fix that as the place of the collision, what bearings did you have or anything else?
632 A. I saw we were just about to cross the bay lights.

Q. What do you call the bay lights—the main channel lights? A. The main channel lights; yes.

Q. How do you know that? A. Because I saw them.

Q. How did they appear? A. As one.

By the Court: Q. You were just about to cross them, you said. Do you mean a little before you crossed them? A. Just about to open out the other way. 633

By Mr. Chubb: Q. Open out which way? A. To the northward.

Q. Would that mean you had got beyond them? A. Before you get to them you have them open to the southward and after you cross you have them open to the northward. We would have opened them out in another couple seconds. 634

Q. Did you notice the Swash Channel lights at the same time? A. Open to the northward.

By the Court: Q. That means you were a little to the eastward? A. To the eastern side. They have to be open to the northward, you carry them that way for the best water; you don't have them in one like the bay lights no time.

Q. That means you were a little to the eastward of that line? A. A little to the eastward of that line. 635

By Mr. Chubb: Q. To keep the Swash Channel correctly, you do not carry both lights in one, do you? A. We do not.

Q. It is an exception over every other channel lights, is it not? A. It is.

Q. And how do you carry them, what is the correct bearing or carrying of them for coming up that channel? A. A little ways open to the northward, you go east pretty near.

Q. Did you notice any buoys at the time of the collision in your neighborhood? A. I noticed the second red buoy at the Bay Cut. 636

By the Court: Q. Was that before or after the collision? A. Right after the collision. What is known as B4.

By Mr. Chubb: Q. Show us on the chart? A. (The witness points out on the chart what is marked "No. B4?")

637 By the Court: Q. On which side of it did you go? A. To the westward of it.

Q. You had that on your starboard hand? A. Had that on the starboard hand; yes, sir.

By Mr. Chubb: Q. How soon after the collision did you notice that buoy? A. About a minute after.

Q. How close to it did you go? A. Right along side of it.

Q. To the southward of it? A. To the westward
638 of it.

Q. What effect did the blow have on your vessel? A. It listed our vessel over to starboard a considerable ways.

Q. How much? A. Several degrees.

Q. Where did it hit you in the first place? A. She hit us about twenty feet from the very stern on the port quarter.

Q. How were the vessels at the time of the contact, what was the angle between the two vessels
639 at the time of the contact? A. Almost at right angles.

Q. Do you know what your compass heading was at the moment of the collision?

By the Court: Q. Won't you place these models to show us how the vessels were at the time of the contact? A. (The witness places the models showing the *Champagne* pointing a quarter of a point towards the bow of the *Lisbonense*.) Then we hard a star-board and swung this way.

640 Q. Do you mean that she was pointing that much forward of you? A. Yes.

By Mr. Chubb: Q. How deep in did she go? A. Very near to the water's edge.

Q. How deep, how far into you? A. About half way in, into the ship.

Q. How many feet? A. Fifteen.

By the Court: Q. What was there at that point

in the interior of the ship, any cargo? A. Stores, I 641
believe; that I know of for one thing, I don't know what else.

Q. Was the shaft hit? A. No, sir.

By Mr. Chubb: Q. Do you know whether it knocked anything overboard? A. It did.

Q. What was it? A. Some of the stores.

Q. Did you see what went? A. I saw things go, I couldn't tell what they were.

Q. What is the next order you gave after the collision? A. To stop her. 642

Q. Was the *Champagne* clear of you when you gave that order? A. She was.

Q. How far ahead of her bow had you got when you gave the order to stop? A. About 50 feet.

Q. How long did you continue stopped? A. Several minutes.

Q. For what purpose? A. To ascertain damage.

Q. What damage did you find? A. Couldn't tell how badly we were damaged, it was dark; we thought we were sinking. 643

Q. Did you see the other vessel, the *Champagne*, after the collision? A. I did.

Q. What did you see? A. I did not suppose that she was hurted any; and besides having a tug along with her.

Q. Had you seen the tug before the collision? A. I had.

Q. Did you see any signals burned from *La Champagne* after the collision? A. I did not.

Q. Did you hear any whistles blown from her 644
after the collision? A. I did not.

Q. Did you see the tug helping her after the collision? A. I did not.

Q. Did you see the tug in the neighborhood? A. I did.

Q. Can you tell us in minutes how long you stayed with the engines stopped? A. About five minutes.

645 By the Court: Q. Did you reverse your engine? A. No, sir.

By Mr. Chubb: Q. What did you then do? A Went ahead, starboarded a little, the steamer coming down Swash showing both lights, to clear her.

Q. Then what did you do? A. Kept going full speed ahead.

Q. Until where? A. Until Quarantine.

Q. What did you do then? A. Stopped and anchored.

646 Q. What next? A. Received the doctor. Ascertained damage there at daylight.

Q. What did you find at daylight? A. Found we was cut down to the water's edge.

Q. Were you making any water? A. Couldn't tell; didn't seem to be making any water.

Q. The pumps didn't show you were making any? A. Pumps didn't show it.

Q. What damage did you find done by the blow? A. Found we had the *Champagne's* bow in our

647 quarter.

Q. How much of her bow? A. About ten feet.

Q. Do you know how many streaks of it? A. I couldn't tell.

By the Court: Q. The whole stem do you mean? A. Part of her stem and plates attached, stem and plates attached—both.

Q. The stem piece was in you? A. Yes.

Q. Carried away? A. Carried away.

Q. That was first in your side, was it? A. Fast in

648 our quarter.

By Mr. Chubb: Q. Had you any knowledge that you had a piece of the *Champagne* sticking in you before you anchored at Quarantine? A. No.

Q. Do you know which bow it was you had in your quarter? A. Starboard, I guess.

Recess.

Q. Did you notice at any time before the collision 649
the red sector of the Hook light? A. I did.

Q. At the time of the collision, where was that with reference to your vessel? A. On our port beam.

Q. Was it visible? A. It was visible.

Q. Do you know when you ran out of it? A. Shortly after the collision.

Q. Can you tell us in feet or yards? A. About two minutes after the collision.

Q. How many feet or yards did you run in that interval? A. 100 feet. 650

Q. How far did you travel before you came to a standstill?

The Court: He hasn't said he came to a standstill, yet. He says he did not reverse.

A. I didn't reverse, no; but she run about 200 feet before she stopped altogether.

Q. Did your vessel lose her forward motion entirely? A. She did after a while.

Q. And how far had you run before she lost it? A. Several hundred feet. 651

Q. Do you know in reference to any buoys or anything where it was that you lost your motion? A No buoys near it.

By the Court: Q. How could you tell that you had come to a full stop in the water? A. I could tell by the lights.

Q. By the lights, where? A. Swash lights. And by the drift of the current.

By Mr. Chubb: Q. How would the drift of the current show you? A. The drift of the current 652
would be going to the eastward.

Q. How would that show you you had lost your motion? A. We would open the lights more to the northward.

Q. You have said that the engines were at full speed at passing the Scotland Light, and were so up to the collision. Were they so in the interval between those two times? A. Full speed all the time.

653 Q. Why didn't you change them during that interval? A. Nothing to be gained by changing them.

CROSS-EXAMINED by Counsel for *La Champagne:*

By Mr. Jones: Q. How long have you been a pilot? A. A year and nine months.

Q. What experience did you have at sea previous to the time you became a pilot? A. In different sailing vessels—ships, square-riggers and schooners.

Q. Where? A. West Indies, San Francisco,
654 Europe.

Q. Did you ever navigate a steamer? A. Never.

Q. Did you ever have a captain's license? A. Never.

Q. What was the largest vessel that you had ever been on? A. There was several large vessels.

Q. What was the largest? A. I don't ask every man the tonnage of his vessel.

By the Court: Q. Can you tell the largest you have been on? A. I couldn't tell, I would have to
655 find that out. I have been on a great many of them.

By Mr. Jones: Q. Changed situations very often, is that it? A. Very often; all sizes—large, and take them as they come.

Q. What has been your position on those vessels? A. Pilot.

Q. Pilot of what? A. What do you mean—before I was a pilot?

Q. I mean to ask you what your position was on
656 these vessels? A. Which vessels?

Q. Those you speak of as having navigated before you became a pilot? A. I never had charge of any vessel before I was a pilot.

Q. What was your position, your highest position before you became a pilot? A. Learning to be a seaman, going to sea, starting going to sea.

Q. I wish you would give me the names of the

vessels you have been on, all of them? A. Ship 657
Columbus, bark *R. W. Thomas*, ship *Seminole*, different schooners and several other vessels.

Q. How often have you been in and out of the port of New York on a vessel?

The Court: Before he was pilot?

Mr. Jones: Before he was a pilot.

A. About a thousand times.

Q. Do you think it is as much as a thousand times? A. Yes, all of it; probably two thousand.

Q. Why don't you say three? A. Several thous- 658
and.

Q. What voyages have you made?

By the Court: Q. What is your age? A. Thirty.

Q. When did you begin your seaman's life? A. About twelve years ago.

Q. Before you became pilot what was your last position on any sailing vessel? A. Able seaman.

By Mr. Jones: Q. On what vessel? A. I don't know the last one.

Q. Think a minute and see if you can't tell us the 659
last vessel you were employed on before you became a pilot? A. I can't think of it.

Q. Do you remember the voyage that you were engaged in? A. I don't.

Q. What has been the nature of the voyages that you have been engaged in, distant or near by? A. Near by and distant both; mostly near by, on the coast.

Q. Can you remember the name of the vessel that you were employed on before the last one, before 660
you became a pilot? A. Pilot boat *Pet*.

Q. New York pilot boat? A. New York pilot boat.

Q. What was your position on her? A. Boy and boat keeper.

Q. Do you know what a house signal is? A. I do.

661 Q. What is it? A. There are different signals—blue light, red light, green light.

Q. How do you define a house signal? A. Do you mean night signal or day signal?

Q. House signal? A. Do you mean a day signal?

Q. Night signal? A. Every line of steamers has different lights. I don't know them, I am not supposed to know the signals.

Counsel for *La Champagne* asks that the answer be stricken out.

662

Q. As a matter of fact you don't pretend to know the house signals? A. No. I have got my vessel to look out for, how to navigate her, and that is enough.

Q. You don't concern yourself with the house or line signals of the large steamers that go in and out of New York? A. I see them once in a while but I don't take notice of them. I pilot my own vessel and that is about all that I can do.

663 Q. You don't care anything about the signals of other vessels? A. I ain't got time, I mind my own business.

Q. Don't you think it would improve your business and the safety of your vessels if you knew the signals of the different vessels you come in contact with? A. Not one bit.

Q. Don't you think it would have improved your knowledge of the probable course of *La Champagne* if you had known the house signals of the French

664 line? A. I should have done the same thing as I did do.

Q. That is not an answer to my question. (Repeated.) Don't you think it would have improved your knowledge of the probable course of *La Champagne* if you had known the house signal of the French line? A. Not any.

Q. What lights did you see on *La Champagne*

when you first discovered her? A. I saw her green 665
light and masthead light.

Q. Did you see the signals she made —— A. I did see some of the signals.

Q. Excuse me, wait until I finish my question. Did you see the signals she made to the Sandy Hook station? A. I did.

Q. What were the signals? A. I couldn't tell you.

Q. You saw them? A. I did see the signals.

Q. Yet you can't tell —— A. I can't tell whether 666
blue light, red light, white light, green light or what it was. I couldn't swear to it; I couldn't know.

Q. Did you see more than one light? A. I did see more than one.

Q. Can you give us any idea of the color of the light? A. I can not.

Q. You are not interested in that at all? A. I can only tell you I saw some signal, that is all I can tell you about it.

Q. You didn't concern yourself at the time to 667
know whether they were the signals of any large ocean steamer? A. I knowed they were the signals of a steamer; that is all I knowed.

Q. Did you notice the bearing of *La Champagne* after —— A. I did.

Q. Just wait until I finish my question. Did you notice the bearing of *La Champagne* after you had made her lights? A. I did.

Q. Did you continue to observe that? A. I did.

Q. Did the bearing alter one way or the other? A. 668
It did not.

Q. What do you understand by that? A. What do I understand by that?

Q. Yes. A. One man had to give way. And I had the right of way; that is why I stand by it; that is why I blew one whistle.

Q. Didn't you understand when you saw the

669 light of *La Champagne* continuing in the same bearing that there was danger of collision? A. I did, and that is the reason I blew one whistle.

Q. What did you expect *La Champagne* to do when you blew your one whistle? A. Slow down and give me a chance, not to crowd me.

Q. Did you expect her to do anything else? A. Or else port, if she was a mind to.

Q. Where did you expect her to go? A. To go clear of me.

670 Q. That is to say, when you had given your signal you thought that gave the right of way; is that it? A. I knew I had the right of way, I didn't think anything about it. I had her on my port beam.

Q. Do you know anything about the depth of the channel? A. I do.

Q. Do you know the course of the large ocean steamers out to sea? A. I do.

Q. What is the course? A. Where?

671 Q. Out to sea from the Narrows? A. Different courses.

Q. For the heaviest drafted vessels? A. Whereabouts?

Q. Say from the Narrows? A. There is several elbows.

Q. What is the course of the heaviest draughted steamers going out of the port of New York from Narrows down? A. From the Narrows you steer down S. by E. until you get off Craven Shoal buoy,

672 and shape your course down S. by W. ¼ W., the main ship channel.

Q. Where do they go then? A. Then around the Southwest Spit, S. E. by E., easterly.

Q. Through Gedney's Channel? A. No, around the Spit.

Q. And after the Spit? A. Then another turn W. by S. ¼ S., till you are E. by N. ¼ N. in the Bay Cut

until you get past the Bay Cut, then you change 673
your course to E. by S. ½ S.

By the Court: Q. E. by S. ½ S. is through Gedney's Channel? A. Through Gedney's Channel, yes. And all allow for the set of the tide—steady the tide.

Q. Through Gedney's is the course E. by S. ½ S.? A. About that. You have to make allowance for tide, always.

By Mr. Jones: Q. The general course out after turning the Southwest Spit is through what is called 674
the main channel or Bayside Cut into Gedney's Channel? A. Yes, Bay Cut.

Q. And then south. Did you know this at the time you sighted *La Champagne?* A. Did I know the course?

Q. Yes. A. I did. I knew that course for years.

Q. Did you have no interest to inquire or ascertain or determine whether or not *La Champagne* was a large vessel and had to take that channel? A. I did.

Q. Did you know that she had to take that chan- 675
nel? A. I didn't know who she was, only seen the lights; couldn't tell what sized ship she was; didn't know which channel she was going to take.

Q. And didn't care anything about it? A. I did care. I didn't know; a dark night.

Q. Don't you think if you had observed her house signals and known them that you would have known she was one of the large steamers of the French line and had to take the main channel? A. Is that any reason why he should run me down because she 676
is a large ship? I had the right of way, she was on my bow five points very near. It didn't make any difference that she was a large steamer of the French line, that didn't alter the case any who she was.

Q. You didn't think it necessary then, assuming that you had the right of way, to take any precautions to avoid danger? A. I knew I had the right

677 of way. I did think it was necessary, and I did all I knew how.

Q. What precautions did you take? A. Go full speed ahead. There was nothing to be gained by slowing, he would sunk me if I slowed.

Q. If you had slowed when you first saw her do you think you would have been in any danger of collision? A. I might; the other man might have ported going out the south way and run into me.

Q. As you got up nearer and noticed that the
678 course and bearing of *La Champagne* didn't alter, was there anything to prevent you from stopping? A. I had no right to stop, she would sunk me then, it was too late then to stop. When a man answered my whistle with one whistle, said "All right, go ahead, pass ahead of me," what right had I to stop?

Q. You think you had no business to stop under those circumstances? A. Why certainly. It would make it worse; it would sunk me.

Q. Didn't you observe soon after sighting the
679 lights of *La Champagne* that she was going out through the Bayside channel? A. I thought she was; yes.

Q. Didn't you know she was? A. She had not come up to the place where she changed her course south yet, and I couldn't tell but she might change her course.

Q. At what point in your progress up towards the point of collision did you become satisfied that she had not and would not change her course? A.
680 When she almost struck us, when I seen who he was.

Q. It wasn't until that time? A. Not until that time.

Q. —that you had any idea that she would not change her course? A. Not until that time.

Q. If she had changed her course what would you have expected to do? A. What do you mean; "change her course?"

Q. If she had changed her course in which direc- 681
tion would you have expected her to change it? A. She could have changed shortly before she struck me; she was going out the south way.

Q. I ask you in which direction you would have expected her to change her course? A. To avoid collision?

Q. Yes. A. To port.

Q. Do you know what would become of her?

By the Court: Q. Change her direction to port? A. Yes. 682

Q. Port what? A. To the starboard side, port her helm a little.

Q. Then you mean go to starboard? A. Yes, her head goes to starboard when you port.

By Mr. Jones: Then you expected her to go to starboard, is that it? A. I did.

Q. Where did you expect her to go? A. Going out Gedney's he could have ported a little, couldn't he?

By the Court: Q. Were you expecting her to go 683
out Gedney's Channel? A. Gedney's Channel; yes. Or he could slow in time, slowed before he did slow; I seen him for a long time.

Q. You said something in your direct-examination about an exchange of signals, and stated, if I recollect your testimony right, that when you gave one signal and got one signal in response it was an assent to the course that you proposed to take. Am I right about that? A. That means, "All right, yes; pass on ahead of me." 684

Q. Wait a minute. You also said, if I remember right, that if you got two blasts of the whistle that would mean something different? A. Parties don't agree then.

Q. What do two blasts of the whistle mean under the regulations? A. Two blasts means starboard. In that case with us it would mean that he would

685 like to pass ahead of me, cross my bow in place of me cross his bow.

Q. That is all it means, isn't it? A. That is what it means.

Q. I wish you would mark on the chart here first the position of *La Champagne* and then the position of the *Lisbonense* when you first feared there would be a collision? A. (The witness does as requested.)

Q. Is that when *La Champagne* blew her three whistles? A. I don't know.

686 The Court: He says they were 100 feet away.

The Witness: About that.

Q. And you had no apprehension of collision up to that time? A. We had apprehension of collision all the time when the two vessels were there in different directions.

Q. Why didn't you stop your headway? A. Why didn't he stop?

The Court: You must answer the question and not ask questions.

687 Q. Why didn't you stop? A. Because I had the right of way.

Q. Do you consider that the right of way justifies you in dashing into certain danger? A. I didn't dash into him, he dashed into me.

Q. Do you consider that the fact that you have the right of way—assuming you had the right of way—justifies you in going on in the face of impending collision? A. He blowing me one whistle justified me to keep the right of way, and besides having the other steamer on my port bow, red to red,
688 my red to her green.

Q. Don't you think you couldhave stopped? A. I could have stopped, yes, and let her run me down altogether and loose lots of lives.

Q. Before you got into the line of her course couldn't you stop? A. Yes.

Q. Why didn't you stop? A. Because she would sunk me.

Q. If you were not in the line of her course? A. 689
I am supposing I was in the line of her course all the time.

Q. But before you got across her course couldn't you have stopped? A. Yes. But we would hold our headway for a while after that, you can't stop and loose headway all at once.

Q. You had the tide against you, didn't you? A. We did. But it takes some time to stop them steamers after they are stopped.

Q. You can stop better with the tide ahead of you 690
than if you were going with it? A. We had the tide on our port beam, running to the eastward, it wasn't right ahead of us.

Q. The drift of it was ahead of you, wasn't it? A. On our port side.

Q. You could have stopped without any difficulty some time before the collision, couldn't you? A. I think it would have been a collision if we had stopped. It would have been worse if we stopped.

Q. Why? A. She would have sunk us. 691

Q. If you were certain that she was going out through the main channel into Gedney's Channel and she was holding her course before you got up to the main channel, do you think you would have been in any danger of being run down if you had stopped and arrested your headway? A. What would you gain by us stopping, her on our port beam?

Q. I ask you whether or not you would have been in any danger of being cut down by *La Champagne* 692
if you had stopped and arrested your course before you got into the line of the main channel? A. We might have stopped by the lightship until she got out, yes, until daylight; then it wouldn't have happened.

Q. Was there anything to prevent you from going astern of *La Champagne*? A. Yes.

693 Q. What was it? A. A steamer coming down showing her port light shortly before the collision.

Q. How did that steamer bear from you? A. That steamer bore about northwest from me, N.W. ½ W.

Q. How far was she off? A. About a mile when I made her; showing her port light and masthead light.

By the Court: Q. Do you know how much you were drawing at that time? A 19 feet 6 inches.

694 Q. You knew it at that time, did you? A. I did.

By Mr. Jones: Q. Did you signal that other steamer? A. Blew one whistle.

Q. Did she answer? A. She did.

By the Court: Q. When did you blow? A. Shortly after I made her.

Q. I mean in reference to the signals to the *Champagne;* before or after the *Champagne's* three whistles? A. Before *La Champagne's* three
695 whistles. We wasn't near the *Champagne* when this other steamer passed us.

Q. She passed you before you got up to *La Champagne?* A. Before we got up to *La Champagne*, yes, the other steamer passed us.

Q. Did the other steamer pass you before you gave your signal to the *Champagne?* A. Yes, she had passed us then.

Q. That was before your first signal to the *Champagne?* A. Yes, sir.

696 Q. What made you think the *Champagne* was going out by Gedney's Channel? A. I didn't know she was going out by Gedney's Channel.

Q. A few moments ago you said you did? A. I did when she struck us; I judged she would; I don't know; then I judged she would by her size—she is generally about 25 or 26 feet and she couldn't use the other channel very well, falling tide.

Q. When you gave the signal of one whistle had 687
you any idea which channel she would take? A. I didn't know until she answered me with one whistle.

Q. When she replied with one whistle had you any idea which channel she would take? No, I did not have.

Q. Would the fact that she came around by the main channel be any indication to you which way she was likely to go? A. It would not.

Q. If she didn't go by Gedney's Channel, by what channel would you expect her to go out? A. 688
South channel.

Q. Do vessels that intend to go out by the south channel usually come by the main channel? A. They don't; they usually come down the Swash.

Q. They usually do? A. They usually do.

Q. How do those that come by the main channel usually go out? A. Out Gedney's.

Q. Coming in through the south channel there is not much change of course through the Swash, is there? A. Not any. 689

Q. Not any change? A. Not any.

Q. Did you notice any lights in the cabin of *La Champagne?* A. I did not.

Q. How was it when she got within half a mile of you, didn't you notice any then? A. I did not.

A. Did you hear any hail to you? A. I did hear a hail.

Q. What was it? A. "Full speed ahead."

Q. What were the positions of the two ships at that time? A. Do you mean what our heading was 700
at the time?

Q. Show me by the models. From whom did you hear the hail? A. *La Champagne.*

Q. Tell me how they were at that time? A. About like *that.* (The witness places the models indicating the bridge of the *Lisbonense* as already past the stem of the *Champagne*, and nearly at right angles).

701 Q. How far off should you estimate the *Champagne* was then? A. When she hailed? About one hundred feet.

Q. Was that hail before or after the three whistles you heard? A. After.

Q. How long after should you guess? A. A few seconds; several seconds.

By Mr. Jones: Q. Did you see any of the lights that were burning in the saloon of *La Champagne?* A. I did not.

702 Q. You didn't notice three lines of port holes lighted by electric lights, did you? A. I did not.

Q. Did you see the side of *La Champagne* at all? A. I did not.

Q. Never saw her side? A. I saw the lights, the green light and the masthead light.

Q. Do you mean to say you never saw the broadside of *La Champagne* at all? A. When she got near us, yes; when she was almost into us.

Q. You saw the broadside then? A. Not the
703 broadside—no.

Q. When did you see the broadside? A. No time.

Q. Now you say no time? A. I saw the whole ship then when she was near us.

By the Court: Q. You saw her starboard side? A. No; I didn't see her starboard side. I saw the starboard light and masthead light. You can't see a ship's side at nighttime, you can only see the lights of a dark night.

Q. Then you didn't see the side at all? A. I didn't
704 see the side—no.

Q. Do you tell me you didn't see her hull at all that night? A. You can't see a vessel's hull of a dark night, it is just like the night.

Q. No matter what you can't see, I only ask whether you did? A. I did not see her hull at all until she got very near us, then I saw the whole of her.

Q. How near you were is a question, but I understood you to say you didn't see her side at all? A. When they shouted, "Full speed ahead" I saw her; I saw it was a Frenchman, a four-masted ship with two funnels. 705

Q. Then it must have been her port side you saw? A. No, she was end onto us then, her four masts in line.

Q. You were on the bridge, were you not? A. Yes, sir. Her four masts were in one.

By Mr. Jones: Q. On which side of her were you when you saw that she was a two-funneled ship with four masts? A. On her port side. 706

Q. That was after you had passed on? A. After we passed her, when we opened her up. That is, I thought she had two funnels, I couldn't swear, it looked like two funnels.

Q. Could you swear to it now? A. I am pretty sure of it.

Q. Did you ever see *La Champagne* before! A. I did. 707

Q. I wish you would mark on this chart in what position the *Lisbonense* was when she stopped after the collision?

The Court: Q. How can he tell?

By the Court: Q. Were you ever on the *Lisbonense* before? A. Never.

Q. You said there was nothing near at the time? A. We were after passing the red buoy.

By Mr. Jones: Q. Did you see the buoy? A. I did. 708

Q. Did you see its color? A. Yes.

By the Court: Q. You passed that red buoy before your vessel got stopped? A. Yes, sir.

Q. How do you know when she stopped? A. The engine was stopped.

By Mr. Jones: Q. Is that what you mean by saying your vessel was stopped—that the engine was stopped? A. I gave the order to stop.

709 By the Court: Q. Was the *Lisbonense* steered by steam or hand gear? A. By steam.

Q. Do you know how her engines reverse?

Mr. Chubb: I will call the master of the *Lisbonense* to testify to it.

JOSEPH HEATH, being duly sworn and examined as a witness for the *Lisbonense*, testifies:

710 By Mr. Chubb: Q. You are at present the master of the *Lisbonense?* A. Yes, sir, at present; not at the time.

By the Court: Q. Do you know when the *Lisbonense* was built? A. She was built in Liverpool.

Q. Do you know in what year? A. 1871.

Q. Do you know how she reverses, whether by steam gear or by hand? A. Reverses the machine, the engine? By steam.

Q. Do you know how long it takes her to reverse
711 from ahead full speed? A. No, sir. I have been so little time on her I have made no experiments.

Q. You know she works astern by steam? A. Very quickly.

Q. She don't require any hand manipulation? A. She doesn't require any hand manipulation at all, sir—steam.

Q. It is the same with the steering gear? A. Identical; it is all worked by steam.

Q. Did you see the *Lisbonense* in her damaged
712 condition? A. No, sir; the repairs were made good when I joined her.

By Mr. Chubb: Q. You changed vessels with the captain of the *Lisbonense* down in the Brazils? A. In the Brazils, yes, sir; at Para on her homeward run.

Q. And the vessel you changed from is now where? A. She is now homeward bound, between the Brazils and England.

By the Court: Q. How many voyages have you run on her? A. One only. This is the first. I simply took her home from the Brazillian coast to England. 713

Q. What is her best speed? A. In most favorable weather, 12 knots or 11 and ¾.

Q. How much draught on that? A. On deepest draught I have had her——

Q. No; going 11 and ¾ or 12 knots, what draught?

A. About 19 feet; 18 feet 6, mean draught, about.

Counsel for the *Lisbonense* offers in evidence seven photographs of the *Lisbonense*. 714

[The Lisbonense Rests.]

Edward Winters, recalled, testifies:

By the Court: Q. What made you estimate your speed at about 9 knots? A. I asked the captain how fast she was going and he told me about 9 knots. 715

Q. When did you ask him that? A. When I got aboard.

Q. You supposed that was full speed, did you? A. Full speed.

Mr. Chubb: I call your Honor's attention to the fact that she was deeper loaded at the time of the collision than this last witness testified to.

The Witness: She was 19 feet 6 when I had her.

By Mr. Chubb: Q. Do you happen to know whether the weather was foul when you went on her? 716 A. She was.

717

HENRY A. DE VERE, recalled as a witness for *La Champagne*, testifies:

By Mr. Jones: Is there any custom among the pilots of this port in respect to signals to indicate assent or dissent to other signals given by other vessels? A. Only in one respect.

Mr. Chubb: I ask that the answer be stricken out and that the question be answered yes or no.

The Court: You can say if there is a custom.

718 The Witness: There is no custom.

CROSS-EXAMINED by counsel for the *Lisbonense*.

By Mr. Chubb: Q. How long have you been a pilot here? A. Ten years last January.

Q. In that time have you never heard steam signals answered from one vessel to another? A. Yes, sir.

Q. What have such answers meant as you understood the answers? A. Simply that I understood

719 what he was going to do.

Q. Have you never heard a signal of one whistle answered by one of two? A. I have heard them but I did not consider the signal right.

Q. What did you understand was indicated by the answer of two whistles? A. To one whistle? I understand by the answer of two whistles to one whistle that the man that blows one whistle is going to direct his course to starboard and the man that blows two whistles is going to direct his course to

720 port, which will naturally bring the two vessels together.

Q. That is what you understand when you hear two whistles answered to one? A. Yes, sir.

Q. And when you hear one whistle answered to a signal of two what do you understand? A. The same way, only the reverse.

Q. Just the converse? A. Yes, sir.

Q. Have you when you heard one signal followed by the other one of two that you have mentioned not observed it lead to other signaling between the same vessels? A. No, sir. 721

Q. Have you never observed such? A. Never. In my experience I have never been answered by two whistles when I gave one.

Q. Have you never seen anybody else answered by two whistles when one was given? A. Yes, sir; I saw it.

Q. How many times? A. Not more than once. 722

Q. And the same with the converse order of whistles? A. Yes, sir.

Q. Once in that, or not at all in that? A. I have heard it once in that.

Q. Once in each way in ten years? A. Yes.

Q. And from that you base your testimony as to the custom? A. Yes, sir.

REDIRECT by Counsel for *La Champagne:*

By Mr. Jones: Q. I understand that you mean to say that during your ten years experience you never had a response to one signal except on one occasion? A. To blow two whistles in response to my one whistle. 723

Q. A response of one signal to one signal? A. Oh, no, sir. Every time I blow one whistle I am always answered, and every time a man blows one signal for me I always answer.

Q. You only referred to getting a response of two signals to one? A. Yes, sir. 724

Q. As occurring in one instance during your whole experience? A. Yes, sir.

By the Court: Do you know of any practice among pilots outside of Sandy Hook to give danger signals? A. Yes, sir. Take my case in point, I gave the danger signal when he gave the signal to cross our bow.

725 Q. I haven't heard you speak of any other than the signal of three whistles? A. That is the danger signal.

Q. That is one of the legal signals to indicate backing? A. Yes, sir.

Q. You don't know of any other signals used to indicate danger? A. I have never heard any.

RE-CROSS-EXAMINED by Counsel for the *Lisbonense:*

By Mr. Chubb: Q. Did I understand you to say
726 that the three whistles you blew you intended as danger signals? A. When I speak of going astern it shows I am in a dangerous position, so it means besides going astern a danger signal too.

Q. Answer my question. Did I understand you to say that the three whistles you blew you intended as danger signals?

Mr. Jones: The witness has already answered the question.

A. Yes, sir.

727 Q. You stated that you had thought of giving two signals, or had in mind to give a signal of two blasts at the time you gave one to the *Lisbonense*—or some one stated that as being your statement. If you had given two signals and had got an answer of one, what would be your understanding of your rights and duties? A. If he had answered me with one whistle I should immediately have stopped and backed.

Q Why? A. Because I should consider the
728 ship in danger.

Q. What would the danger have arisen out of? A. Of the two ships coming together—him blowing one whistle and I blowing two.

Q. How would the whistles have entered into the case? A. If I had directed my course to port and he to starboard, the vessels would naturally come together.

Q. And that is what you would have understood from the whistles I mentioned? A. Yes, sir. 729

Mr. Chubb: I ask your Honor for permission to submit further testimony to prove the custom of the port as to whistles.

The Court: Both pilots substantially agree, and they also agree exactly with the articles, and I can't see any reason for further testimony. It must be entirely immaterial to show what somebody else might think or do, or how they would interpret a certain thing. 730

HENRY A. DE VERE, recalled, testifies:

By Mr. Chubb: Q. Have you understood my question to you on cross-examination to refer to the custom in this port, that is to say, in the East and North Rivers and in the bay and Narrows, or with reference to waters outside, or with reference to both? A. I understand your question with reference to both, the harbor and outside. 731

Mr. Chubb: I now renew my request for permission to offer testimony on the point I mentioned, namely, that an answer of two whistles to a signal of one is understood by pilots to indicate a disagreement which must be solved before the vessels can safely proceed.

The motion is denied on the ground that it is immaterial. Counsel for *Lisbonense* excepts. 732

EDWARD WINTERS, recalled, testifies:

By Mr. Jones: Q. Who were on the bridge besides yourself after you sighted *La Champagne?* A. The captain and one of the officers.

Q. One of the officers? A. One I am sure, I don't

733 know whether there was two or not—I couldn't tell you exactly how many—and the wheelsman.

Q. Any quartermasters? A. That is what I mean by wheelsmen, quartermasters.

Q. How many? A. I forget whether there was one or two. There was four on the bridge altogether, that I am positive of, besides myself.

By Mr. Chubb: Q. Who were these four besides yourself? A. I couldn't tell you.

Q. What were their duties there? A. One was
734 mate, and the captain.

Q. That is two? A. And I don't know whether one wheelsman or two.

Q. Anybody else besides those? A. I think there was another man there, yes, standing by the telegraph.

Q. Are you sure about it? A. Not sure. I am sure about four being there besides myself.

Q. Then the fourth man may have been the extra wheelsman or the man at the telegraph? A. Yes,
735 sir.

JEAN LAURENTE BOYER, recalled as a witness for *La Champagne*, testifies:

By Mr. Jones: Q. From which side of the ship were most of the plates forced off by this collision? A. The plates on the port side were torn out and the plates on the starboard side were stove in,
736 forced back. The photographs show a little there that the plates on the starboard side were bent in but it was on the port side they were torn out.

Q. These photographs represent the appearance of *La Champagne* without any reverse action of the camara through which they were taken? A. That is right.

CROSS-EXAMINED by Counsel for the *Lisbonense*: 737

By Mr. Chubb: Q. On the French vessels, or on your vessel, does not the helm move the same way that the bow falls off in answer to it? A. The order is given according to the side to which you wish the ship to come. When the pilot says starboard, we say port in French. We know that the pilot gives the order with reference to the tiller, whereas we translate it with reference to the direction in which we wish the ship to come.

738

[TESTIMONY CLOSED.]

Counsel hereupon sum up the case. Mr. Jones for *La Champagne*, Mr Chubb for the *Lisbonense*.

Briefs to be submitted one week from date.

La Champagne's Exhibit 1 of June 9, 1891.

Steamer *La Champagne*. 739

EXPERIMENTS FOR STOPPING,

Made on the 21st March in the Harbor of Havre, with no current and a good northeasterly breeze.

REMARK.—The wind was blowing on the starboard, while on the 7th of December it blew on the port side.

Heading at the outset S. 67° W. of the compass.

Engine forward, with 35 revolutions. 740

The steamer running 10k. 5.

Stopped abreast of the Grand Slacard at.....	7 o'c. 30m. 17s.			
Ordered to run backwards at full speed at.....	7 o'c. 30m. 40s.	(A)		
Having overcome the inertia of the run forward the engine ran backwards at full speed at...	7 o'c. 31m. 05s.	.....	.....	
Stopped the engine. The steamer ceased to run at.....	7 o'c. 33m. 10s.	2m. 53s.	2m. 30s.	2m. 05s.

741 Heading of the steamer when she had not any more speed at all ; that is to say, at 7 o'c. 33m. 10s. =north 87° west.

The bearings of the remarkable points at 7 o'c. 33m. 10s. show that between that time and 7 o'c. 30m. 17s. the steamer ran a distance of about 455 meters, or not quite three times its length.

RESULTS.

The steamer took

742 2 minutes and 53 seconds to lose her headway from the time the engine was stopped.

2 minutes and 30 seconds to lose her headway from the time the order was given to run backwards.

2 minutes and 05 seconds to lose her headway from the time the engine ran at full speed backwards.

The steamer ran a distance of about 455 meters.

The bow of the steamer fell to starboard 26°, say 2 and $\frac{3}{4}$ points.

743 Note (A.) Between the order to stop the engine and the order to run backwards at full speed, an interval of 23 seconds was allowed to place the steamer in about the same circumstances of manœuvre as on the 7th of December; but that interval was certainly not so long. It should be estimated to have been about 15 seconds.

(See the accompanying diagram.)

744 Heading of the Steamer.

The heading at the outset was about.....	N. 75° E. true
The steamer having come to starboard about $\frac{2}{3}$ of 26°, say..	17°
This placed the heading of *La Champagne* at the moment of the shock to.....	S. 88° true

The two steamers being perceptibly perpendicular, one on the other, at the moment of the shock, this placed the *Lisbonense's* heading about North true.

REMARK.—As her heading at the outset was in the direction of the Swash Channel to N. 50° W. true, the *Lisbonense* therefore came 4 points ½ to the starboard. Had she the good idea of coming 4 points ½ to port, the collision would have been widely avoided. 745

La Champagne's Exhibit No. 2 of June 7, 1891. 746

DIMENSIONS OF "LA CHAMPAGNE."

Length of the upper deck, 153.5 meters, or 503 feet, English measure.
Width at midship-frame, 15.77 meters, or 51 ft. 5 in., English measure.
Depth to the keel, 13.25 meters, or 43 ft. 5 in., English measure.
Displacement, 10,000 tons.
Gross tonnage, 7,200. 747
Net tonnage, 2,545.
Power of the engine, 8,000 horse, of 75 kilogrameters.
Number of water-tight bulkheads, 12.

Screw propeller. { 4 straight blades inclined ⅛. Exterior diameter 7 m., or 23 ft. Eng. }
Furrow. { Engress, 9.50 m., or about 31 ft. meas. Exit, 10.50, or about 33 ft. }

748

Opinion.

BROWN, *J.*—At about half-past five on the morning of December 7, 1890, a little before daybreak, the libellants' steamship *La Champagne*, outward bound on one of her regular trips from New York to Havre, came in collision with the British steam-

749 ship *Lisbonense*, inward bound, a little outside of Sandy Hook, and very near the point where the track of the main ship channel intercepts the axis of the Swash and South channels. The stem of *La Champagne* struck the port quarter of the *Lisbonense* about 20 feet from her stern, penetrating about 2 feet, cutting her down nearly to the water's edge, and tearing off her plates aft, while the stem of *La Champagne*, and a number of plates from her port bow were carried away, and left sticking fast in the
750 side of the *Lisbonense*. Each charges the fault upon the other, and the above cross-libels were filed to recover their respective damages.

La Champagne is a steamer of the first-class, 504 feet long, of about 10,000 tons displacement, and drawing at the time of collision 25½ feet. The *Lisbonense* was 270 feet long, of about tons burden, and drew 19½ feet. The former, on account of her deep draft, was necessarily proceeding out around the Southwest Spit, by way of the main ship
751 channel, and Gedney's channel; the latter was coming in by way of the South channel and the Swash, the axis of which crosses the main ship channel at an angle on the S. W. side of 10¾ points. At the time of collision the night was clear, but dark; the tide had been running ebb 2 hours; the wind was fresh from the northwest. *La Champagne*, after leaving her dock the previous day, had been detained by fog near Quarantine until about half-past 4 A. M. of the 7th, when she got under way, and passed the
752 meridian of the Sandy Hook lights at 5.20 A. M. At that time she burned her private signal torches, and soon after burned a blue light for the pilot boat outside to be in readiness to receive her pilot. These signals, as well as her green and white lights, were observed by the *Lisbonense*, which was then on the usual course up the South channel, about N. W. ⅜ N. The red light of the *Lisbonense* was seen by *La*

Champagne at about the same time, bearing 23 de- 753
grees, as indicated by the alidade, on her starboard bow. This would make the two vessels about two miles apart at that time, and *La Champagne* about one and one-half miles, and the *Lisbonense* about one mile from the point of collision. The speed of the former derived from her engines was about 10½ knots; of the latter, as stated by the master to the pilot when he came aboard, 9 knots. Making corrections for the tide, which, according to the coast survey reports, would run at the rate of about 1.75 754
knots at that time, and which soon after passing Sandy Hook ran about 3½ points to starboard of the course of *La Champagne*, and about two points off the port bow of the *Lisbonense*, and allowing something for the fresh northwest wind, *La Champagne* would be making a little less than 12 knots over the ground and the *Lisbonense* a little less than 7½ knots. These conclusions as to speed harmonize with the other facts of the collision, and with the bearings as testified to by Capt. Boyer, and they so far confirm 755
his narrative. They are not compatible, however, with the estimate of several of the witnesses for the *Lisbonense* that *La Champagne* bore about four or four and one-half points off her port bow after she had steadied up the South Channel; and her bearing, until collision was near, could not have been more than from three to three and one-half points off the port bow of the *Lisbonense*. Capt. Boyer, of *La Champagne*, upon sighting the *Lisbonense*, observed her carefully with the alidade, to see whether her 756
bearing changed or not in reference to the necessity of taking precautions against the collision. After observing her a short time, not seeing any material change in her bearing, he informed the pilot, who replied that the *Lisbonense* would give way. Soon after, still seeing no change of bearing, and when the pilot was about to give a signal of two whistles to the

757 *Lisbonense*, signifying that he would go to the left and ahead of her, he received a signal of one whistle from the *Lisbonense*, which was immediately answered by one whistle from *La Champagne*. There are no means of determining the precise time when these signals were exchanged, or the exact distance the two vessels were then apart. Most of the witnesses for the *Lisbonense* estimate the distance as about a mile, and I see no reason to believe it less than three-fourths of a mile. *La Champagne* ported her helm, so
758 as to change her heading about one-quarter of a point to starboard, which was all that was safe for her in that channel, in an ebb tide and northwest wind. The *Lisbonense* ported, so "as to change her heading half a point or a point only, whereupon she steadied her helm upon the proper course to go up the Swash channel," and thereby resumed substantially the same course she was on before. Capt. Boyer, after carefully continuing to watch the *Lisbonense*, and judging manœuvers necessary, stopped his engines,
759 and a few seconds afterwards reversed at full speed, repeating the order, "back as strong as possible," and at the same time gave the *Lisbonense* a signal of three whistles, which announced his reversal to the *Lisbonense*, and soon after repeated the same signal. The *Lisbonense* was all the time going at full speed, and she continued at full speed until collision.

Upon the testimony of the *Lisbonense* alone there would be much uncertainty and inconsistency as to
760 the time when these signals were given, or were heard by her, as well as to what was done by her. The master and others of her witnesses say that when those signals were heard *La Champagne* bore abeam of her, and was only about 100 feet off. Her pilot at first said that when he heard the blast of three whistles she bore "fully 4½ points on the port bow; may be 5." Afterwards he says: "She

was pretty near right angles—very nearly abeam— 761
100 feet away." Her other witnesses say the same. But this is so clearly erroneus as much to discredit these witnesses on other controverted points. The fact that the *Lisbonense* was penetrated only about two feet (the pilot says 15 feet) with the other's great momentum (10,000 tons) is proof to my mind that her rate of motion at the moment of collision could not have exceeded two knots (*The Martello*, 34 Fed. Rep., 71, 73), though the master's computation assumes over three knots. At that mo- 762
ment both were subject to about the same effects from the tide, which in that respect is therefore disregarded. From the experiment made with *La Champagne*, as well as those made with similar vessels (*La Normandie*, 43 Fed. Rep., 159, 161), a reduction from 10 knots to 2 through the water (a half knot would be lost in stopping 20 seconds), would have required at least 2 minutes' time with the engine backing at a power of only 16 knots, and an advance of at least 1,150 feet through the water, 763
to which should be added 200 feet for difference of tideway between the two vessels. When the three whistles of *La Champagne* were heard, the *Lisbonense* put her helm hard aport, and must have changed from three to four points; since the collision was at about right angles, and *La Champagne* must have turned to starboard about one and one-half points while reversing. If, as her master says, *La Champagne* at collision was angling a little forward, the *Lisbonense* must have changed 764
more than four points. This, however, I think improbable. Her change of about four points to a right angle with the course of *La Champagne* agrees with the testimony of officer Dupont, who observed the heading of the *Lisbonense* at collision. In making this change to starboard, the *Lisbonense* must have gone at least 1,000 feet, and probably more, so

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was pretty near right angles—very nearly abeam— 761
100 feet away." Her other witnesses say the same. But this is so clearly erroneus as much to discredit these witnesses on other controverted points. The fact that the *Lisbonense* was penetrated only about two feet (the pilot says 15 feet) with the other's great momentum (10,000 tons) is proof to my mind that her rate of motion at the moment of collision could not have exceeded two knots (*The Martello*, 34 Fed. Rep., 71, 73), though the master's computation assumes over three knots. At that mo- 762
ment both were subject to about the same effects from the tide, which in that respect is therefore disregarded. From the experiment made with *La Champagne*, as well as those made with similar vessels (*La Normandie*, 43 Fed. Rep., 159, 161), a reduction from 10 knots to 2 through the water (a half knot would be lost in stopping 20 seconds), would have required at least 2 minutes' time with the engine backing at a power of only 16 knots, and an advance of at least 1,150 feet through the water, 763
to which should be added 200 feet for difference of tideway between the two vessels. When the three whistles of *La Champagne* were heard, the *Lisbonense* put her helm hard aport, and must have changed from three to four points; since the collision was at about right angles, and *La Champagne* must have turned to starboard about one and one-half points while reversing. If, as her master says, *La Champagne* at collision was angling a little forward, the *Lisbonense* must have changed 764
more than four points. This, however, I think improbable. Her change of about four points to a right angle with the course of *La Champagne* agrees with the testimony of officer Dupont, who observed the heading of the *Lisbonense* at collision. In making this change to starboard, the *Lisbonense* must have gone at least 1,000 feet, and probably more, so

765 that the distance of the vessels apart, when the three whistles of *La Champagne* were blown, must have been from 1,500 to 2,000 feet. This makes probable the testimony of the master and pilot of the *Lisbonense*, who say that they had no apprehension of collision until these three blasts were heard. It is incredible that they could have had no fear of collision until *La Champagne* was within 100 feet of them, as they allege; or, if that were the case, that they should not have noticed her cabin lights, as
766 they say they did not, to indicate an approach so near. The master also says he had aported when those whistles were heard, and, had they not been heard till *La Champagne* was within 100 feet, the *Lisbonense* would not have swung a point to starboard before collision.

On the part of the *Lisbonense*, it is claimed that, in accordance with the ordinary rule of the road, *La Champagne*, having the *Lisbonense* on her starboard hand, was bound, under Article 16 of the in-
767 ternational rules of 1885, to keep out of the way.

For *La Champagne* it is contended: (1) That it was the duty of the *Lisbonense* to give way, under Article 23, in the present case, because the navigation of *La Champagne*, on account of her great draft, was hemmed in by winding channel ways and by shoals which would not admit of the application of the rule for the open sea; that these difficulties were increased by a strong ebb-tide and a fresh northwest wind, in consequence of which it
768 was impossible for *La Champagne* to keep out of the way of the *Lisbonense* by going to starboard, without the certainty of running upon shoals before she could recover the channel, while the much smaller draft of the *Lisbonense* permitted her to go in any direction without hindrance; and that it was, therefore, the duty of the *Lisbonense* to suffer *La Champagne* to pursue her course on the same principle on

which a boat, descending with the tide an unob 769
structed channel-way or river, has the right of way as respects an ascending vessel, because the latter can perfectly control her movements, while the other cannot (*The Galatea*, 92 U. S., 439; Mars. Coll. (2d Ed. 59). (2) That, without regard to the foregoing, the *Lisbonense*, after giving a signal of one whistle, under Article 19, was bound, by the express command of that article, to continue her course to starboard, and that it was her failure to do so that produced the collision. 770

Upon the construction which seems to me necessary of the present rules of navigation, I find the last contention of *La Champagne* well founded. Article 19 says that—

"A steamship may indicate her course to any other ship which she has in sight by the following signals of her steam whistle, namely: One short blast, to mean 'I am directing my course to starboard;' two short blasts, to mean 'I am directing my course to port;' three short blasts, to mean 'I am going full 771
speed astern.' The use of these signals is optional; but, if they are used, the course of the ship must be in accordance with the signal made."

The meaning of the last clause seems to me unmistakable. It is not complied with by navigating in the prescribed direction at the moment of giving the signal, and then changing it the next moment, or the next. The purpose of the signal is to apprise the other vessel of some manœuvre the former is making and to let the other know what she may or 772
must count upon. The obligation, therefore, is not a mere momentary one. How long a port wheel must be continued in such a case, it is not necessary to consider; but the rule requires at least some substantial change of direction to be made and preserved, provided the circumstances of the navigation present no obstacle thereto, until the danger is over,

773 or some new manœuvre becomes necessary. On any other construction the signal would be virtually a false signal and a snare, since the other vessel could never tell for how long or how short a time the signaling vessel would continue to act in accordance with her signal, nor upon what to count. In the present case, the only change of course, to starboard, in accordance with the signal claimed to have been made by the *Lisbonense*, "is from half a point to a point," which was accomplished in going
774 some 200 or 300 feet, when the vessels were three-fourths of a mile apart. The *Lisbonense* then resumed substantially her former course. There was nothing in the circumstances of her navigation to compel her to do so. The Swash Channel was nearly a mile and a half distant, and there was no obstructions to prevent her going to starboard *ad libitum*, in accordance with her signal. But, in fact, no substantial change of her course to starboard was made. She had been for some time previously heading up
775 the Swash Channel course, and, going "a half point or a point" to starboard, she again headed up the Swash Channel course, as before. The change in her position effected by her slight porting was perhaps 25 feet, more or less, to the eastward, and then her former heading was resumed, only a trifle more to the westward even than before. Such a resumption of her former course substantially after going to starboard "a half point or a point" was not only a violation of the obligation of Article 19, but a vio-
776 lation of Article 22 also, because it changed her course a half point or a point towards *La Champagne*, after she had once effected at least so much change away from her. The least she could do under Articles 19 and 22 was to preserve unchanged such a direction to starboard as she had already made under her signal. Her change of a half point or a point back towards *La Champagne*,

which she must have made in order to head up the Swash Channel, was of itself far more than enough to produce the collision, while a reasonable continuance of her port helm long enough to effect a substantial compliance with her signal, and an adherence to the change of course thereby made, would have carried the *Lisbonense* still further to the eastward. 777

Assuming that the *Lisbonense* had the right of way, and that it was the duty of *La Champagne* to keep out of the way, Article 19, in my judgment, did not authorize her to take the initiative, or to give any signal at all to *La Champagne* at the time she did, when three-fourths of a mile away from her. She had no such right until constrained to change her course. That article authorizes signals only when "taking any course authorized or required by the regulations." But the regulations do not authorize any change of course by crossing vessels, except by the vessel bound to keep out of the way; the other must "keep her course" (Article 22). The system of signaling under Article 19 is essentially different in this respect from the system authorized and required by the rules of the supervising inspectors in rivers and harbors. The latter rules for the most part do not prescribe or always require any change of course; they are to indicate only on which side of the other the signaling vessel proposes to pass. They are compulsory. An answer is required, that a common understanding may be had, and the answer does not necessarily demand any change of helm. Whether such a change is required or not depends on the circumstances. Under Article 19 no answer to another's signal is required or provided for. The signal is an announcement of a change of course to the right or to the left. It is optional; but, if given, the corresponding change must be made. It is said that the manœuvre of the *Lisbonense* only 778 779 780

781 aided *La Champagne* in her duty of keeping out of the way. That would have been true had the obligation imposed on the *Lisbonense* by Article 19 been performed, and the manœuvre adhered to; but the obligation being broken, and the manœuvre revoked without notice, *La Champagne* was misled to her obvious prejudice. Instead of going off to starboard, as her signal promised, the *Lisbonense*, after turning a trifle to starboard, came back on *La Champagne's* course, thus doubly deceiving her.

782 The fault of the *Lisbonense* in this respect was the same as in the more common cases of an unexpected change of course across the other's bow (*The Roanoke*, 45 Fed. Rep., 905; *The Newport*, 44 Fed. Rep., 445).

Considering the claim of *La Champagne's* pilot, that the practice of pilots was that vessels coming up the south channel should give way to the big ships going down with the ebb-tide through the main channel, the initiative taken by the *Lisbon-*

783 *ense*, without reason or necessity, and in violation of Article 22, if the ordinary rule were inoperation, when at least three-fourths of a mile distant, afforded the pilot of the *La Champagne* some ground for the supposition that the *Lisbonense* intended to waive the ordinary rule of the road, in accordance with the practice as he claims to have understood it. But, on the other hand, if such had been the intention of the *Lisbonense*, the more appropriate course would have been to go to the

784 westward, with a signal of two whistles, passing under *La Champagne's* stern. In fact, the signal of one whistle, given under the present international rules, and under the obligations of Article 19, in the circumstances of the *Lisbonense* and with her actual destination, was so singular a signal that I have some doubt whether the pilot of the *Lisbonense*, whose experience was not of the best, was

mindful at the time he gave that signal of the obligation that Article 19 imposed, or had any thought of observing it. That the master had no such thought is to be inferred from his testimony that they steadied to keep the ship in "the proper place for entering the Swash channel." The international rules of 1885 are, however, expressly made applicable to the "coast waters," and have been repeatedly held applicable in this situation (*The Aurania*, 29 Fed., 98; *The Non Pareille*, 33 Fed. Rep., 524.) *La Champagne*, therefore, not only had the right, but was bound, to regard the signal given by the *Lisbonense* as a notice that she was going off to starboard, and she did so understand it. This notice caused *La Champagne* to abandon the course to port which her pilot was about to adopt, and, after proceeding as far towards the southerly side of the channel as was safe (which I am satisfied she did), all that her master and pilot were required to do was to observe the movements of the *Lisbonense*, and, when risk of collision appeared, to stop or reverse in time to avoid it. This is precisely what they did. They had the right to count upon the course of the *Lisbonense* to starboard which her signal had promised. They had no reason to suppose she was doing otherwise; and when *La Champagne* reversed, she reversed in time to avoid collision without aid from the *Lisbonense*, had the *Lisbonense* been going upon a course to starboard which her signal had promised, and which *La Champagne* supposed she was pursuing. Had the *Lisbonense* been on that course, clearly no collision would have occurred, for *La Champagne* would have been stopped before the *Lisbonense* was reached. The master and pilot of *La Champagne* had no notice, as I have said, that the *Lisbonense* was not performing her duty, or had not taken the course to starboard

785 786 787 788

789 which her signal indicated; and they are not chargeable, therefore, with fault in not reversing sooner. As it was, two seconds more time would have saved the disaster, although the *Lisbonense* had precipitated collision by resuming her former course towards *La Champagne* before her last porting. This last manœuvre of the *Lisbonense* was not, in fact, of any benefit, but disastrous. Her duty at a distance of 1,500 or 2,000 feet from *La Champagne*, when the three whistles were heard, was to stop and back,
790 in accordance with Article 23. Had she obeyed that article, a plot of the navigation shows that she would undoubtedly have thereby passed considerably astern of *La Champagne*. She was at that time too far off to plead a situation *in extremis*, for I wholly discredit her testimony as to her distance at that time, and, even *in extremis* the plea would not avail, because the peril was [illegible] fault in changing her heading to [illegible] *pagne* (*The Elizabeth Jones*, 112
791 Sup. Ct. Rep., 468; *The Maggie* [illegible] S., 349, 355, 8 Sup. Ct. Rep., 159

The primary cause of the collision was the neglect or misapprehension by [illegible] the obligation imposed by Article [illegible] signal of one whistle was given. [illegible] was the natural sequence of the [illegible] obligation. It was no fault in *La Champagne* she did not anticipate or guard [illegible] *ense's* violation of her duty, for
792 could not be perceived. No other fault established against *La Champagne*. The libel of *Lisbonense* is dismissed, and the cross-libel of *pagne* sustained. Decrees may be entered accordingly, with costs.

At a Stated Term of the District Court of 793
the United States for the Southern
District of New York, held at the U. S.
Court Rooms, in the City of New York,
on the 6th day of October, 1891.

Present—Hon. ADDISON BROWN, *District Judge.*

ROBERT SINGLEHURST, ROBERT BROCKLEHURST, GEORGE WILLIAM BROCKLEHURST, HENRY BROCKLEHURST, SEPTIMUS BROCKLEHURST, HUGH HATHORN NICHOLSON and ELIZA JANE HILLIS,

Cross-Libellants,

VERSUS

LA COMPAGNIE GENERALE TRANSATLANTIQUE,

Respondent.

794

This cause having been heard upon the pleadi
and proofs adduced by the respective parties,
argued and submitted by their advocates, and
deliberation having been had in the premises,
now by the Court

Ordered, adjudged and decreed, that the l
herein be and the same hereby is dismissed, w
costs.

And the costs of the respondent having been d
taxed at the sum of one hundred and seventy
and $\frac{13}{100}$ dollars, it is

Further ordered, adjudged and decreed, that
Compagnie Generale Transatlantique, the respo

797 ent herein, recover of R[illegible] ert
Brocklehurst, George Willia[illegible] ary
Brocklehurst, Septimus Br[illegible] la-
thorn Nicholson and Eliza[illegible] el-
lants herein, the sum of one [illegible] ty-
five and $\frac{13}{100}$ dollars, and t[illegible] gs
under this decree be stayed [illegible] nt
to the rules and practice of [illegible] de-
cree be sooner satisfied, that [illegible] he
cross-libellants' stipulation [illegible] be-
798 fore this Court, at a stated t[illegible] ur
days after the expiration of t[illegible] hy
judgment and execution sh[illegible] nst
them, their goods, chattels, [illegible]

(Sd.) [illegible]

(Endorsed)—Final Decree. [illegible] 91.

799 U. S. DISTRICT COURT,
SOUTHERN DISTRICT OF NEW YORK.

ROBERT SINGLEHURST *et al.*,
Libellants,

vs.

800 LA COMPAGNIE GENERALE TRANSATLANTIQUE,
Respondent.

Sirs.—Please take notice that the libellants herein hereby appeal from the final decree made and entered herein on the 6th day of October, 1891, to the next United States Circuit Court of Appeals for the

Second Circuit, to be holden in and for said Cir
at the City of New York.

Dated New York, October 12, 1891.

Yours, &c.,

SIDNEY CHUBB,
Proctor for Lib

To Messrs. COUDERT BROTHERS,
Proctors for Respondent.

SAMUEL H. LYMAN, Esq.,
Clerk.

(Endorsed)—Notice of Appeal.—Filed Octr.
1891.

UNITED STATES DISTRICT COURT,

SOUTHERN DISTRICT OF NEW YORK.

ROBERT SINGLEHURST *et al.*,
Libellants,

vs.

LA COMPAGNIE GENERALE TRANS-ATLANTIQUE.

ASSIGNMENT OF ERRORS.

The libellants hereby assign errors in the rulings 804
and proceedings of the District Court herein, as
follows:

FIRST.

For that the Court sustained the objection made
on behalf of the respondent herein to the following
question propounded to the master of the steamship
La Champagne, Jean Laurente Boyer, upon cross-

805 examination by the advocate for the libellants (fol. 114):

> "Q. What information or instruction did you intend the master of the *Lisbonense* to gather from your answer of one whistle to his one whistle?"

SECOND.

For that the Court erred in denying the libellants' 806 motion to strike from the record the answer of the master of *La Champagne* to a question propounded upon cross-examination by the libellant, as follows (fol. 123):

> "Q. You think, then, that the pilot ought to have known it was your vessel *La Champagne* that showed lights off the point of the Hook? A. I think that most of the pilots know the signals of our company, and they know what steamer ought to go out a certain day."

807

THIRD.

For that the Court erred in denying the libellants' motion to instruct the said witness to answer the said last quoted question by "Yes" or "No."

FOURTH.

For that the Court erred in overruling the objection made by the libellants to the following ques- 808 tion as being incompetent on redirect-examination, propounded on the redirect-examination of the master of *La Champagne* (fol. 336):

> "Q. You have made a diagram, have you not, to show the effect, or rather the result of your turning your course to starboard after sighting the *Lisbonense?*"

FIFTH.

For that the Court erred in excluding the following question propounded by the libellants upon cross-examination of Henry A. De Vere, pilot of the *La Champagne* (fol. 163):

"Q. Then why did you accept that signal when it was given? A. For courtesy's sake, which is the practice of the port.

"Supposing you had been discourteous on this occasion for reasons of your own, what would you have done?

"Objected to. Objection sustained."

SIXTH.

For that the Court erred in entering a final decree dismissing the libel herein.

SEVENTH.

For that the Court erred in refusing to enter a decree in favor of these libellants for the damages sustained by them by reason of the collision set forth in the pleadings herein, with interest and costs, and in not adjudging the respondents and their servants, the master and crew of their said steamship *La Champagne*, at fault for said collision.

Dated New York, October 14, 1891.

SIDNEY CHUBB,
Proctor for Libellants.

(Endorsed)—Assignment of Error.—Filed Oct. 16th, 1891.

813 UNITED STATES DISTRICT COURT,

SOUTHERN DISTRICT OF NEW YORK.

ROBERT SINGLEHURST *at al.*,
Libellant and Appellants,

vs.

LA COMPAGNIE GENERALE TRANS-
814 ATLANTIQUE,
Respondent and Appellee.

TO THE HONORABLE THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SECOND CIRCUIT:

The appeal of Robert Singlehurst and others, owners of the British steamship *Lisbonense*, libellants and appellants herein, respectfully shows to the Court as follows:

815 That on or about the 21st day of January, 1891, the libellants and appellants herein filed their verified libel, alleging that they were the owners of the British steamship *Lisbonense*, and that the respondent was the owner of the French steamship *La Champagne*.

That on the morning of Sunday, December 7, 1890, the said steamships were in collision in the Main Ship Channel off Sandy Hook, whereby the libellants' said steamship *Lisbonense* was greatly
816 injured and damaged. That said injury and damage was occasioned by the fault and negligence of those in charge of the said steamship *La Champagne*, and they prayed judgment condemning the respondent in the amount of the damages aforesaid, as by reference to said libel will more fully appear.

That thereafter the said respondent appeared in

said action by its proctors, and a stipulation for value was duly filed to secure payment of any judgment which the libellants might recover in the premises in the sum of $23,500. 817

That on the 7th day of February, 1891, the respondent filed its verified answer to the said libel.

That thereafter, and on or about the 9th, 10th and 12th days of June, 1891, the issues raised by the said libel and answer came on to be tried before the Honorable Addison Brown, Judge of the United States District for the Southern District of New York, upon the pleading, testimony and proofs adduced by the respective parties, whereupon the cause was orally summed up and subsequently submitted upon written briefs and other papers by their advocates. And the said District Judge having advised thereon, did, on or about the 3d day of July, 1891, render his decision in writing, holding that your libellants, said steamship *Lisbonense*, was solely at fault for the collision aforesaid. 818

That thereafter and on the 6th day of October, 1891, a final decree was duly made and entered in said District Court, wherein and whereby the libel herein was dismissed, with costs to the respondent, as by reference to said final decree will more fully appear. 819

That thereafter and on the 16th day of October, 1891, these appellants duly filed their assignment of errors herein.

These libellants and appellants are advised and insist that the said final decree is erroneous, inasmuch as the said collision was caused by the negligence of those in charge of the respondent's said steamship *La Champagne*, and of her officers and crew, and these libellants and appellants for these and other reasons hereby appeal from the whole of said final decree to the next United States Circuit Court of Appeals for the Second Circuit, and on the said ap- 820

peal they intend to have the said cause heard anew upon the pleadings and proofs had and taken in the District Court, and upon further proofs to be taken in the said Court of Appeals, and to seek a new decision upon the facts.

And these libellants and appellants pray that the record and proceedings of the District Court in said cause may be returned to the said United States Court of Appeals for the Second Circuit, and that the said decree of the District Court may be reversed, with costs, and that the errors committed by said District Court may be corrected, and that a decree may be entered remanding the said cause to the said District Court with instructions to enter a decree in favor of the libellants for the amount of their damages aforesaid, with interest and costs, and for such other and further and different relief in the premises as may be just.

Dated New York, October 19th, 1891.

SIDNEY CHUBB,
Proctor for Libts. and Applts.

The foregoing appeal is hereby allowed.

E. HENRY LACOMBE,
Judge.

(Endorsed)—Petition of Appeal.—Filed Octr. 19th, 1891.

UNITED STATES DISTRICT COURT. 825

SOUTHERN DISTRICT OF NEW YORK.

ROBERT SINGLEHURST *et al.*,
Libellants and Apellants,

vs.

LA COMPAGNIE GENERAL TRANSATLANTIQUE,
Respondent and Appellee. 826

Know all men by these presents, that we, Robert Singlehurst and others, libellants and appellants herein as principals, and Percy Chubb and Charles Myers, sureties, are held and firmly bound unto La Compagnie Generale Transatlantique, in the sum of one thousand dollars ($1,000), to be paid to the said La Compagnie Generale Transatlantique, its succes- 827
sors and assigns, for the payment of which well and truly to be made, we bind ourselves and each of us, our and each of our heirs, executors and administrators jointly and severally firmly by these presents. Sealed with our seals and dated the 14th day of October, A. D. one thousand eight hundred and eighty-one;

Whereas, the above named libellants and appellants have appealed to the United States Circuit Court of Appeals for the Second Circuit from a 828
decree of the United States District Court for the Southern District of New York, bearing date the sixth day of October, 1891, in a cause wherein Robert Singlehurst *et al.* are libellants, and La Compagnie Generale Transatlantique is respondent, &c.:

Now, therefore, the condition of this obligation is

829 such, that if the above-named appellants shall prosecute their said appeal with effect and pay all damages and costs which shall be awarded against them as such appellants therein, if they shall fail to make such appeal good, then this obligation shall be void, otherwise the same shall be and remain in full force and effect.

ROBERT SINGLEHURST *et al.*,
Libellants,
by SHIPTON GREEN,
their Agent.

830

PERCY CHUBB,
CHAS. MYERS.

Signed, sealed and delivered and taken and acknowledged before me this 14th day of October, A. D. 1891.

EDWIN B. WOODS,
Notary Public,
[L. S.] Kings Co.
Cert. filed in N. Y. Co.

831

Southern District of New York, ss.:

On this 14th day of October, 1891, before me personally appeared Percy Chubb and Charles Myers, with whom I am personally acquainted, who being by me duly sworn do depose and say, each for himself, that he resides in the City of New York, N.Y., and that he is worth the sum of five thousand dollars ($5,000), over and above all his just debts and liabilities.

832

PERCY CHUBB.
CHAS. MYERS.

Sworn to before me, this 14th day of October, 1891.

EDWIN B. WOODS,
Notary Public,
[L. S.] Kings Co.
Cert. filed in N. Y. Co.

Bond approved.

E. HENRY LACOMBE,
Judge.

Appellee appearing and objecting, that appeal is 833
premature and amount insufficient in view of the pending of the case in the Court below, which objections are not passed upon, being properly for the consideration of Court of Appeals on proper motion.

E. H. LACOMBE.

(Endorsed)—Supersedeas.—Filed Oct. 19th, 1891.

834

UNITED STATES OF AMERICA, SS.:

By the Honorable E. HENRY LACOMBE, Judge of the United States Circuit Court of Appeals for the Second Circuit, to LA COMPAGNIE GENERALE TRANSATLANTIQUE, owner of the French steamship *La Champagne*, &c., GREETING:

You are hereby cited and admonished to be and appear before the United States Circuit Court of 835
Appeals for the Second Circuit, to be held at the City of New York, on the 26th day of October, 1891, pursuant to an appeal filed in the office of the Clerk of the District Court of the United States for the Southern District of New York, in a cause wherein Robert Singlehurst *et al.* are libellants and appellants and you are appellee, to show cause, if any such there be, why the judgment and decree in the said appeal mentioned should not be corrected and speedy justice should not be done to the parties in that be- 836
half.

Dated New York, October 19th, 19th, 1891.

E. HENRY LACOMBE.

(Endorsed)—Citation.—Filed Oct. 19th, 1891.

837 UNITED STATES OF AMERICA, Southern District of New York. } ss.:

ROBERT SINGLEHURST *et al.*,
Libellants,

v.

LA COMPAGNIE GENERALE TRANSATLANTIQUE,
838 Respondent.

I, SAMUEL H. LYMAN, Clerk of the District Court of the United States of America for the Southern District of New York, do hereby certify that the foregoing is a correct transcript of the record of the District Court in the above-entitled cause, made up pursuant to Rule No. 52 in Admiralty of the United States Supreme Court.

839 In testimony whereof, I have caused the seal of the said Court to be hereunto affixed, at the City of New York, in the Southern District of New York, this day of October, in the year of our Lord one thousand eight hundred and ninety-one, and of the Independence of the said United States, the one hundred and sixteenth.

Clerk.

840

UNITED STATES CIRCUIT COURT OF APPEALS. 841

FOR THE SECOND CIRCUIT.

ROBERT SINGLEHURST *et al.*,
Appellants,

vs.

LA COMPAGNIE GENERALE TRANSATLANTIQUE, 842
Respondents.

Sirs,—Please take notice, that Richard Tone Pettit will be examined as a witness on behalf of the appellants herein, Singlehurst *et al.*, before John A. Shields, Esq., a Commissioner of the Circuit Court of the United States for the Southern District of New York, at his office in the U. S. Post Office building, 843 in the City of New York, on Tuesday, the 24th day of November, 1891, at three o'clock in the afternoon of said day, at which time and place you are hereby notified to be present and put interrogatories if you see fit.

Dated New York, November 19, 1891.

Yours, &c.,

SIDNEY CHUBB,
Proctor for Appellants.

To Messrs. COUDERT BROTHERS, 844
Proctors for Respondents.

(Endorsed)—U. S. Circuit Court of Appeals, Second Circuit.—Robert Singlehurst *et al. vs.* La Compagnie Generale Transatlantique.—Notice of Examination.—Sidney Chubb, Proc. for Applts., No. 50 Wall Street. New York, N. Y.—A copy of the within paper has been this day received.—N. Y., Nov. 21, 1891.—Coudert Brothers, Attorneys.

845 U. S. CIRCUIT COURT OF APPEALS,

FOR THE SECOND CIRCUIT.

ROBERT SINGLEHURST *et al.*,
Appellants,

v.

LA COMPAGNIE GENERALE TRANS-
846 ATLANTIQUE,
Respondents.

NEW PROOFS on behalf of the appellants taken on behalf of the appellants pursuant to the annexed notice.

Present.—Mr. CHUBB, for the Appellants, and
Mr. JONES, for the Appellee.

847 RICHARD TONE PETITT, being duly sworn, testified as follows :

Q. 1. What is your name, age, residence and occupation?

A. Richard Tone Petitt; my age is 33 years; my occupation is that of Clerk; I reside at No. 265 West One Hundred and Twenty-ninth street, New York City.

Q. 2. With what firm have you been clerk for the
848 last year?

A. Coudert Brothers, 68 and 70 William street, New York City.

Q. 3. Will you look at the document now shown you and state if you recognize it?

A. It looks like a copy of a protest in this case.

Q. 4. Have you seen it before to-day, and if so, when and under what circumstances?

A. I don't know as I have seen this identical 849
paper, I have seen something that resembles it.

Q. 5. Do you see anything in that paper different from what you saw in the other paper which you say it resembles?

The form of the question is objected to as no sufficient foundation has been laid for it.

A. I can't say, it is so long since I saw the paper —almost a year now.

Q. 6. Then you do not now see any point in which 850
you know the paper now shown you differs from the other paper you have mentioned?

A. My memory in regard to this paper is very indistinct. I can see neither resemblance nor difference between it and the paper mentioned, except that the paper I mentioned was in a foreign language, as this apparently is.

Q. 7. Will you state what the paper you have referred to was?

A. A copy of the protest of the commander of the 851
steamer which was in collision, the result of which is the present action.

Q. 8. What had you to do with that paper you have mentioned?

A. It was handed to me for the purpose of being served on the captain of the *Lisbonense*.

Q. 9. Did you serve it?

By Counsel for the Respondent: Q. As to whether this paper or some other paper is the 852
protest referred to by the witness.

Q. 10. Did you so serve the paper then handed to you?

Objected to as calling for the conclusion of the witness, by counsel for the respondent.

A. I did serve the paper that was given to me for service.

853 Q. 11. When and where did you serve it?

A. I served it I think on December 7th or 8th last year, upon the captain of the *Lisbonense* in Brooklyn, at Martin Stores, Brooklyn.

Q. 12. What time in the day or night?

A. As near as I can recollect, in the evening between 5 and 8 o'clock. It was after dark.

Q. 13. Did you not, before serving it, send into the captain one of Messrs. Coudert Bros.' cards?

A. I think I did.

854 Q. 14. To the best of your recollection and belief, is not the paper now before you the paper you then served?

A. That I can't say, as there is nothing on it to aid me in identifying it.

Answer objected to as not responsive, and the Commissioner is applied to instruct the witness to answer the question yes or no.

The Commissioner says that he has no power to pass upon the testimony or to give instruction to the witness, but must take down all that was said and pass it over to the Court.

855

Counsel for the appellant excepts to the ruling of the Commissioner.

Q. 15. (Question repeated.)

A. I can't say, as there is nothing on this paper to aid me in identifying it.

Q. 16. By whom were you instructed ts serve the paper you have mentioned?

856 A. I don't recollect whether it was Mr. Jones or Mr. Pelletier; it was either one of these two gentlemen.

Q. 17. What is Mr. Pelletier's first name and his position?

A. Hartley G. Pelletier is his full name, and he was at that time and is still the managing clerk for Coudert Brothers.

Q. 18. Have you ever seen Captain Boyer of the 857
French steamship *La Champagne* write?

A. No; I have never seen him write.

Q. 19. Have you talked with Mr. Jones respecting the service of this protest which you have mentioned, within the last four or five days?

A. I have not.

Q. 20. Did you see the protest which you served at any time other than the time it was given to you for service?

858

The form of this question is objected to, as the paper referred to is obviously in the possession of some other person, and it is not shown that the possession of the same has changed.

A. Not that I can recollect.

Counsel for the French Steamship Company calls on counsel for the *Lisbonense* to state whether or not he proposes to offer in evidence the paper which he has shown to the witness.

859

Counsel for the appellants states that he shall offer the paper, after that he shall have proved it, unless counsel for the appellee will now admit the paper shown to the witness, and marked for identification Appellants' Exhibit A, is the paper which the witness served on the master of the *Lisbonense*.

Counsel for the French Steamship Company states in answer that he is unable to admit that the paper referred to is the paper served by this 860
witness. But as the same, by the notice thereon endorsed, purports to be a copy of a protest filed in the office of the French Consul at New York, he offers to admit in evidence the original thereof deposited in the office of the French Consul at New York, when the same is duly produced and offered in evidence. And in order

861 to facilitate the proof of the paper in question he has requested the Chancellor of the Consulate to bring the original protest in question before the Commissioner, and that official is now present and ready to produce the original record in his possession.

Counsel for the French Steamship Company is unable to go further than this, and cannot admit that the paper produced by counsel of the *Lisbonense* is either a copy of such original
862 so filed, or the paper that was served as stated by the witness, inasmuch as he cannot identify the handwriting of the said paper, and has not compared it with the original.

Counsel for the French Steamship Company asks the Commissioner to note the presence of the Chancellor of the French Consulate with the record in question.

863 The Commissioner notes that there is a gentleman present with a book in hand.

RICHARD TONE PETITT.

Subscribed and sworn to before me this 24th day of November, 1891.

JOHN A. SHIELDS,
Commissioner,
S. D. of N. Y.

864

865

NEW YORK, November 27, 1891.

Met pursuant to adjournment.

Present—Counsel as before.

EDWARD K. JONES, sworn as a witness for the appellants, testified as follows:

By Mr. Chubb:

Q. 1. You are the Mr. Jones referred to in the testimony of Richard Tone Pettit taken herein? 866

A. Well, I am not able to say whether I am the Mr. Jones referred to or not, but I presume that he must mean me.

Q. 2. Is there any one else of your surname in your firm's office?

A. No.

Q. 3. Did you give Mr. Pettit the instructions to which he testifies as to serving a copy of the protest of Captain Boyer upon the master of the *Lisbonense?* 867

A. That I am not able to definitely answer. I remember that the agent of the Compagnie Générale Transatlantique received a cable dispatch from the Paris office of the line directing him, after consultation with me, to serve a copy of Captain Boyer's protest upon the captain of the *Lisbonense.* Whether I actually supervised the instructions that were given to Mr. Pettit or not I can't remember, I think it is probable that in obedience to those instructions I, in the usual course of business, caused 868 the paper that was given to me as a copy to be handed out in to our general office with instructions that it should be served.

Q. 4. Do you recollect whether you gave Mr. Pettit personally any instructions in the premises?

A. I do not.

Q. 5. Will you look at the paper now shown you,

869 which is marked "For Identification, Appellant's Exhibit A, November 24, 1891, J. A. S., Ex'r," and state whether that paper, or any part of it, is the paper which you have just mentioned as having given instructions concerning to your general office?

A. I saw this paper a few days ago, when Mr. Pettit was examined, but I don't take time now to give it any further examination. I can't remember whether this is the paper that I directed to be served
870 or not; I don't even remember that I ever saw the paper that is supposed to have been served upon the captain of the *Lisbonense*. I was consulted by the agent merely as to the propriety of the service, and whilst I believe that the paper was served from the office, I am unable to identify this as the paper that was served, or even to say that I have seen it before.

Q. 6. Have you seen Captain Boyer, of the steamship *La Champagne*, write?

871 A. Never, to my knowledge.

Q. 7. Have you seen writing which you knew to be his?

A. I have received communications in writing from him—or rather, communications which purported to be from him; I am not able to state whether they were written in his handwriting or in the handwriting of some one else.

Q. 8. Will you please look at the signature and the line following, on the first page of Exhibit A for
872 Identification, and state whether or not to the best of your recollection and belief that is not the signature of Captain Boyer of the steamship *La Champagne?*

A. I am not able to state that it is not the signature of Captain Boyer, neither am I sufficiently familiar with his handwriting to state that it is his signature.

Q. 9. Is it not your belief that it is his signature? 873

A. Well, not knowing anything about it, I have no belief on the subject.

Q. 10. Is that the only answer you can make to the question?

A. That is the only answer I feel called upon to make.

Q. 11. How long have you known Captain Boyer?

A. About two years.

Q. 12. Is Mr. Pettit's position in your office such 874 that he would be authorized to serve a protest without having received explicit instructions from some one in authority over him to that effect?

A. Yes, sir; Mr. Pettit is a notary public, and often receives instructions from persons outside of our office to perform notarial duties.

Q. 13. That is work outside of work for which he is employed by your firm, is it not?

A. Yes; he is a general notary, and I have known of a number of instances where clients having no 875 direct business with our office in the matter in which he is called upon to act, have requested him to perform the duties of a notary; and my impression is that that was so in this case, because I didn't deem the matter of serving this paper of any consequence whatever, and therefore didn't charge myself with any particular duty in that respect.

Q. 14. Do you wish to be understood now as saying that you did not instruct some one in your office to serve upon Captain King a copy of Captain Boy- 876 er's protest?

A. I wish to be understood in this way, that not attaching any importance to this matter, but probably yielding to what I considered a perfectly innocent proceeding, I may have instructed our managing clerk to have the protest served, or I may have told Mr. Forget, the agent of the Compagnie

877 Generale Transatlantique, or his deputy who brought me the cable that I have referred to, that it might be served from our office; as to the particulars, I recall nothing definite whatever.

Q. 15. Do you not know as a fact that you did so instruct some one in your office to make service?

A. I do not.

Q. 16. Have you not, on a prior occasion, stated in conversation to me that you did so instruct somebody?

878 A. I may have stated to you that probably I did so instruct some one in our office.

Q. 17. Will you swear positively that you did not state that, as a matter of fact, you did so instruct somebody?

A. I don't care to raise any issue as to conversations that I may have had, but I state now that I am unable to say positively that I gave any such instructions, but I think it quite likely, as I have stated before, that I may have done so.

879 Q. 18. Have you this cable which you refer to?

A. Not at present.

Q. 19. Can you and will you produce it?

A. Well, I don't feel called upon to produce it. It is either in my own office or in the office of the agent of the French line. I merely remember of seeing such a cable. I may have it.

Q. 20. Do you wish to be understood as declining to produce it?

A. No, I do not. I think that I might very well
880 decline to produce a cable that is intended for my notice as counsel of the Compagnie Generale Transatlantique.

Q. 21. Do you recollect telling me that you caused the protest to be served in obedience to the instructions you received by cable?

A. I may have said to you that our office caused that protest to be served.

Q. 22. Now, will you kindly state who in your 881
office other than yourself would have authority to take such action in this case?

A. Well, if Mr. Forget, the agent of the Compagnie General Transatlantique, were to come into our office and say that he desired to have a paper served, it would be served without any question, or in my absence any of my partners might direct the service of a paper in any case of which I have charge. Ordinarily, however, when I am present, matters concerning cases in which I 882
am acting are submitted to me, and are subject to my direction. As I have already stated, it is quite probable that I gave directions to the managing clerk in this case to have the protest of Captain Boyer served; it is not improbable, on the other hand, that after I had given my advice to Mr. Forget, he returned at some subsequent time and requested either Mr. Pettit or our managing clerk to have the papers served. I will state that I have no distinct recollection about it whatever, except that it was proposed 883
to have the protest served, and that I acceded to the proposal.

Q. 23. If such service had been made by direction of one of your partners, or of any one else in your office in your absence, would not such fact be communicated to you on your return to your office, or shortly thereafter?

A. Very probably.

Q. 24. Have you any recollection of receiving any such communication in this case? 884

A. I have not.

Q. 25. When in your office it is wished to serve a copy of a particular paper or document, what is the name of the gentleman who is charged with the duty of seeing that the paper served is a true copy?

A. Well, ordinarily, the managing clerk or his assistant, or in the absence of both of them, some

885 one acting in their places; nevertheless, as our office is divided into branches, each one having a distinct corps of clerks, it frequently happens that in matters concerning the particular branch to which the particular business may belong, some one of the clerks connected with that branch supervises the service of papers; but generally papers are served under the direction of the managing clerk.

Q. 26. His name and his assistant's name are what?

886 A. Mr. Pelletier is the managing clerk, and Mr. Pettit is assistant managing clerk.

Q. 27. Will you look again, if you please, at the first page of Exhibit A, and state whether that page was not prepared in your office or under your direction?

A. I am not able to say; I don't recollect that I have ever seen any paper of that kind used in our office; still I may be wrong about that, especially if the paper is cut off. The style of the paper is not

887 unlike some that we have in use, except that it is very much longer.

Q. 28. Do you recollect whether Captain Boyer was in your office on the day succeeding the collision?

A. I do not; I remember seeing Captain Boyer shortly after the collision, but whether it was the day after I can't recall.

Q. 29. Can you recall the wording of the cablegram you have mentioned?

888 A. Substantially, I think.

Q. 30. Will you do so?

A. It was to the effect that the captain should deposit in the office of the consul the protest required to be made by him in accordance with French law, and should cause a copy thereof to be served on the master of the other colliding steamer. I think it also said that this should be done after a consultation with myself as the counsel of the company.

889

HARTLEY G. PELLETIER, sworn as a witness for the appellants, testifies as follows:

By Mr. Chubb:

Q. 1. You are managing clerk in the office of Messrs. Coudert Brothers?

A. Yes, sir.

Q. 2. And have been for how long past?

A. About a year and a half, I think.

Q. 3. In December of last year what had you to 890
do with reference to the service upon the master of the steamship *Lisbonense* of a copy of the protest of Captain Boyer of the steamship *La Champagne?*

A. Well, I have just a recollection that something was done in reference to that protest; if my recollection serves me right, I gave one of my assistants a copy; I gave him a paper; I am unable to say whether it was a copy of the protest or not; I gave one of my assistants a paper to serve on the master of the *Lisbonense:* it is possible I didn't give it to 891
him at all; I recollect something of the kind was done; as to whether I did it or not, I am not sure.

Q. 4. Will you look at the paper now shown you which is marked "For Identification Appellants' Exhibit A, November 24, 1891, J. A. S., Ex'r," and state whether or not you have seen it before?

A. I think I have seen that first sheet, without the mark "For Identification," but as to the rest of it—this French manuscript—I have no recollection.

Q. 5. Was the first sheet prepared in your office? 892

A. Yes, sir; as far as I am aware of, it was; it is written on our paper.

Q. 6. And the form dictated by you?

A. No; I don't think it was; I know it was not.

Q. 7. By whom was it dictated or prepared?

A. I don't know.

Q. 8. What is your recollection on the point?

893 A. Well, as I have already stated, my recollection is very dim on the point. The matters, if I remember at all, were gotten up speedily one afternoon, when I was very busily engaged; this is a matter not within my particular province, and while the papers may have gone through my hand, they may not have. The service of papers in our office is under my control in the main, but if I do not happen to be in the room and the papers are ready, there is no ceremony waiting for me to come back. Further-
894 more, I will state that that first page looks familiar to my eye. It may be that my memory is mistaken. Who prepared it, I don't know.

Q. 9. Whose signature is at the foot of the typewritten portion of the first page?

A. There is a signature there that I can't make out, followed by the words "Capitaine Du Paquebot *La Champagne*."

Q 10. Will you please read the typewritten part, and say if, after having read it, you know whose
895 signature it is?

A. Well, it is apparently the signature of the captain of the French steamer *La Champagne;* as to whether that is his original signature, I don't know. I think that Captain Boyer is the captain of *La Champagne*, but I am not sure; he is *now*, I think; as to whether he was then, I don't know; I don't know whether that is his signature; I don't know whether it is an original signature; it is bad enough to be.

896 Q. 11. To the best of your recollection and belief, is it not his handwriting?

A. I have no recollection on the subject, for I don't know Captain Boyer's signature, so I can't have any recollection about it; that certainly wasn't signed in my presence.

Q. 12. Have you never seen Captain Boyer write, or writing which you knew to be his?

A. I have never seen him write, and I don't know 897
whether I have ever seen any writing which I knew to be his. He is not brought into contact with me at all; I haven't any occasion to be brought into contact with any of the people of that line—at least not in connection with these matters.

Q. 13. Did you give Mr. Pettit any instructions concerning the service of the paper you have mentioned?

A. Well, I don't know that I have mentioned any paper. 898

Q. 14. Assuming that you mentioned having seen the first page before, did you give Mr. Pettit any instructions with reference to that portion?

A. I don't know whether I did or not.

Q. 15. Did you take any instructions in connection with it from any one?

A. I don't know that I did.

Q. 16. Have you no recollection on the point at all?

A. Not as to whether I received instructions or 899
not.

Q. 17. Have you any with reference as to whether you gave any instructions?

A, No, I haven't.

Q. 18. Have you any means of refreshing your memory upon either of those points?

A. No

Q. 19. Is a register kept in your office?

A. There is.

Q. 20. Does it contain any entry upon this point? 900

A. I haven't the register before me now; I have never looked to see if there were any; I will assume that in the ordinary course of business which I try to have followed up in my office, there is an entry that a paper was served on that night if there was a paper served on that night.

Q. 21. Will you be kind enough to look and let

901 me know at a future occasion, and if you find such entry to produce it?

Counsel for the Compagnie Generale Transatlantique declines to produce any register entries in his office, and instructs the witness not to produce any such entry or any such book containing such entry.

Q. 22. Do you decline to produce such book?

A. The book is not mine. If my superiors direct
902 me not to produce the book, I can not produce it unless they give it to me.

Q. 23. Do you decline to examine the book to see whether or not such an entry appears in it?

A. I will ask permission of the counsel for the *Champagne* to examine the book; I wouldn't examine it without their permission; it is their book.

Q. 24. Have you no authority to examine the register without special permission?

A. Not in a case where I have been specially pro-
903 hibited from examining it.

Q. 25. Have you been specially prohibited from examining it in this connection?

A. I have not been directed in terms not to examine that book.

Q. 26. What have you been told in that connection?

A. I have just heard the objection of the counsel for the *Champagne* to the production of the book, and from that I assume that I am not to examine
904 the book or produce it.

Q. 27. You construe that to indicate a direction to you not to examine the book for the entry in question?

A. I do.

Q. 28. Is any book other than the register kept in your office, which would show an entry of such service, if it were made?

A. There is a blotter or tickler, in which entries 905
are supposed to be made, although as a matter of fact they very seldom are, of such services, for the mere purpose of temporary preservation.

Q. 29. Is that in existence?

A. There is one such in existence; there are several; as to whether the one in which this entry might have been made is in existence or not, I would have to wait until I looked it up.

Q. 30. Will you examine and produce such blotter, and see if such entry appears? 906

Counsel for *Champagne* makes the same objection with respect to the blotter that he has heretofore made with respect to the register of the proctors for the *Champagne*, that he declines to produce the same, and instructs the witness not to produce the same.

The examination is suspended to admit of further proceedings being taken with reference to the books in question. 907

HARTLEY G. PELLETIER.

Sworn to before me this 27th day of November, 1891.

JOHN A. SHIELDS,
U. S. Commissioner.

As the counsel for the appellants and cross-libellants is spending so much time in trying to prove that a certain paper that he has, was served upon his client, the captain of the *Lisbonense*, 908 counsel for the French steamship again renews his offer to admit in evidence the record of this protest and the proceedings thereunder in the office of the French Consul in this city, without any former, technical proof of the same, and upon the simple certificate of the Consul to the effect that the same is a copy of the record and of the whole of

909 the record with respect to the protest of the *Champagne* in regard to the collision with the *Lisbonense*, and thereupon to admit that the same, or such part thereof as counsel may designate, was served upon his client at any date that he may state.

Counsel for the appellants states that the paper which he wishes to prove and which is marked "For identification, Defendant's Exhibit A, November 24, 1891," has matters upon it which he believes are not upon the record in the Consulate referred
910 to, and therefore it is necessary for him to prove the service of the said paper marked "Appellants' Exhibit A."

Counsel for the French Steamship Company calls upon counsel for the other side to state in what part he believes the matters in the paper which he has in his hand differ from the record in the office of the French Consul.

Counsel for appellants states that the first page
911 is, he believes, not in the original record, although he has not examined such original record in the office of the French Consul.

Counsel for the French Steamship Company asks counsel on the other side to read the matters on the first page to which he has just referred.

The paper is produced by counsel for the appellants, and shown to the counsel for the Compagnie Generale Transatlantique for his information.

912 And the Counsel for the Compagnie Generale Transatlantique passes the page to the stenographer with the request that he enter it upon his minutes.

The page referred to is as follows :

"Marked for Identification Appellants' Exh.
"A, November 24th, 1891, J. A. S., Ex'r.

913

"To the Captain of the British Steamship
"'Lisbonense,' Port of New York.

"Sir:

"The within is a copy of my protest this day "lodged with the French Consul at New York, con- "cerning the collision between the French steam- "ship *La Champagne* and the British steamship "*Lisbonense*, near Sandy Hook, on the morning of "December 7, 1890, the same exhibiting the notice 914
"of claim of my owners against your ship, as re- "quired by French law.

"Very respectfully,

"De Boyer,

"Capitaine de Paquebot *La Champagne*."

Counsel for the French Steamship Company inquires of counsel on the other side if there are any other matters connected with the paper served on his client than the one just referred to. 915

Counsel for appellant states that he does not know.

Mr. Jones: Does the paper itself purport to show any other difference.

Mr. Chubb: The paper is at the disposition of the counsel for examination.

Counsel for the French Steamship Company states that upon inspection of the paper he finds no other addition to what purports to be a copy of the protest in question, and he thereupon offers to so 916
admit; also, when the certified copy of the record in the Consul's office may be produced as above stated, he will admit that the copy served upon the captain of the *Lisbonense* had annexed to it a notice substantially as above quoted.

This offer, as well as the preceding offer, is made

917 to shorten the proceedings, and to avoid unnecessary consumption of time and the useless enlargement of the record.

Adjourned to Monday, November 30, 1891, at 3.30 P. M.

NEW YORK, November 30, 1891.

918 Met pursuant to adjournment.

Present—Mr. CHUBB and Mr. PELLETIER.

Application is made on behalf of the French Line for an adjournment on account of the absence of counsel (Mr. Jones), which application is denied, and it is directed that the testimony be taken subject to the right of the counsel for the French Line to object to-morrow or at such other adjourned day as may be fixed,
919 and also subject to the right of counsel for the French Line to cross-examine the witnesses on the adjourned day.

JOSEPH B. JONES, sworn and examined for the appellants, testifies as follows:

By Mr. Chubb:

Q. 1. What is your age, residence and occupa-
920 tion, Mr. Jones?

A. Twenty-two; clerk; residence, Brooklyn.

Q. 2. In what office are you clerk?

A. The Red Cross Line of steamers, Shipton Green, agent, 112 Pearl street, city.

Q. 3. Do you know Captain Boyer, the master of the French steamship *La Champagne?*

A. By sight.

Q. 4. Have you seen him write or seen him ac- 921
knowledge a signature to be his?

A. Well, I saw him acknowledge his signature before one of the deputies in the Custom House this morning.

Q. 5. What was the signature appended to?

A. His ship's manifest; his manifest of entry.

Q. 6. Did you afterwards examine the signature?

A. Yes, sir.

Q. 7. Will you look at the paper now shown you, 922
which is marked for identification Appellants' Exhibit A, November 24, 1891, J. A. S., Ex'r, and state whether you compared the signature at the foot of the first page of said exhibit with the signature of Captain Boyer which you have mentioned?

A. Well, I compared the signature with the signature on the manifest.

Q. 8. Whose is the signature appended to the first page of Appellants' Exhibit A, which you now hold in your hand?

A. It appears to be that of Captain Boyer, and to 923
the best of my knowledge it is his.

The paper shown the witness, which has already been marked for identification, is offered in evidence and marked Appellants' Exhibit A, November 30, 1891, J. A. S., Ex'r.

Cross-examination reserved, and the right to object to the testimony and to the admission of the paper is also reserved under the stipulation. 924

925

LAWRENCE PHILLIPS, sworn and examined for the appellants', testifies as follows:

By Mr. Chubb:

Q. 1. What is your age, residence, and occupation, Mr. Phillips?

A. Fifty-one; clerk; 13 and 15 Old Slip.

Q. 2. Are you familiar with the French language, Mr. Phillips?

926 A. Yes.

Q. 3. Will you look at the paper now shown you which is marked Appellants' Exhibit A, for identification, November 24, 1891, and also Appellant's Exhibit A, November 30, 1891, and state whether or not you have made a translation of the French portion of said paper?

A. I have.

Q. 4. Is the paper now shown you such translation?

927 A. Yes.

Q. 5. Is it a correct and true translation of the French portion of the Exhibit A?

A. Yes, sir.

The paper produced by the witness is offered in evidence by the appellant, and is marked Appellant's Exhibit B, November 30, 1819, J. A. S., Exr.

928 Q. 6. Will you attend for cross-examination within a reasonable interval, Mr. Phillips, upon notice?

A. Yes, sir.

Same reservation of right to object and same reservation of right to cross-examine.

Adjourned to Tuesday, December 1, 1891, at 2 P. M.

929

NEW YORK, December 1, 1891.

Met pursuant to adjournment.

Present—Counsel as before.

JOSEPH B. JONES, recalled for CROSS-EXAMINATION:

By Mr. Jones:

x-Q. 9. Mr. Jones, how long had you known Captain Boyer when you witnessed his signature to 930
his manifest yesterday?

A. Well, when I saw Captain Boyer was on other occasions pertaining to this trial; that is up at the office there, where the car stables are.

x-Q. 10. You have no personal acquaintance with him.

A. No, not personally.

x-Q. 11. Did you ever receive any letters from him?

A. No, sir. 931

x-Q. 12. Did you ever see what purported to be his handwriting, except the signature in the Custom House yesterday morning?

A. Not that I remember.

x-Q. 13. How did you come to go to the Custom House yesterday morning?

A. Well, I knew by reading in the papers and talks which I had with Mr. Chubb that the *Champagne* was due, and that she would, of course, enter in the Custom House yesterday morning, which was the 932
custom; that was what took me there.

x-Q. 14. It is a fact, isn't it, that you were instructed either by Mr. Green or Mr. Chubb to watch for Captain Boyer when he went to the Custom House in order to overlook his signature?

A. Well, I was asked to try and have a look at his signature and compare it.

933 x-Q. 15. What steps did you take in order to ascertain that?

A. Well, I saw him—the documents handed in to the deputy, which were the usual documents of entry; then I went to one of the other officers in the afternoon, after the entry had gone through its formula, and saw the entry.

x-Q. 16. Where did you first see Captain Boyer yesterday morning?

A. In the rotunda.

934 x-Q. 17. You waited there for him at the entry office; is that so?

A. Well, right in the rotunda.

x-Q. 18. Did you or did you not wait until he came there to make an entry of his ship in order to overlook his signature?

A. I waited there.

x-Q. 19. Did you or did you not wait until he came for the purpose of entering his ship, in order to overlook his signature?

935 A. I did wait.

x-Q. 20. Didn't you do it for that purpose?

A. Well, for the purpose of seeing him acknowledge his signature.

x-Q. 21. You are in the office of the Red Cross Line of steamers?

A. Yes, sir.

x-Q. 22. And that is the line to which the *Lisbonense* belongs?

A. Yes, sir.

936 x-Q. 23. And you are in the employ of Mr. Shipton Green, the agent of the *Lisbonense?*

A. Yes.

x-Q. 24. Had you ever seen Captain Boyer write before yesterday morning?

A. No, sir.

x-Q. 25. Had you ever seen his signature before yesterday morning?

A. To a document which was handed me—that 937
was shown me by Mr. Chubb.

x-Q. 26. How do you know that that was Captain Boyer's signature?

A Well, for the reason that I compared it with the entry in the Custom House.

xQ. 27. That is, you took the document that you now refer to, which was handed to you by Mr. Chubb, and, without any previous knowledge of Captain Boyer's handwriting, compared it with his signature in the Custom House yesterday morning? 938

A. Yes.

x-Q. 28. But you never saw him either write his signature or anything else prior to yesterday morning?

A. Not to my knowledge.

Signature waived.

LAWRENCE PHILLIPS, recalled for CROSS-EXAMINATION 939

By Mr. Jones:

x-Q. 7. Mr. Phillips, you have been present at all stages, or nearly all stages, of this case, have you not?

A. I think so; yes, sir.

x-Q. 8. And you have been acting in the interests of the owners of the *Lisbonense* as an interpreter? 940

A. Yes, sir.

x-Q. 9. I wish you would state what experience you have had in the translation of French documents?

A. I have been translating, off and on, for 20 years.

x-Q. 10. Have you been accustomed to translate

941 protests in relation to maritime matters during that time?

A. Yes, sir.

x-Q. 11. To what extent?

A. A great many.

x-Q. 12. Are you a native Frenchman?

A. No, sir.

x-Q. 13. Where were you born?

A. In England.

x-Q. 14. What experience have you had with
942 the French language?

A. I was two years at school in Paris, and I have been there several times since.

x-Q. 15. Is that all the experience you have had with French?

A. No; an ordinary school French education in England.

x-Q. 16. I wish you would please state in what instances you have made translations of French maritime protests?

943 A. I don't recollect now; I don't have any entries of when the cases are.

x-Q. 17. Have you ever been called upon to translate any document from the French language into English in any court of justice?

A. No, sir.

x-Q. 18. Never before this occasion? And you were asked to make this translation by Mr. Chubb and you have been assisting Mr. Chubb with your previous knowledge of French in the examination
944 and cross-examination of the witnesses for the French Line in this case?

A. No, sir; I did not act as interpreter.

x-Q. 19. That is not what I asked you. (x-Q. 18 repeated.)

A. No, I did not.

x Q. 20. Do you mean to say that you haven't been present?

A. Yes, sir; I have been present. 945

x-Q. 21. What have you been present for?

A. To look after the other man, I suppose.

x-Q. 22. What young man?

A. Mr. Stetson.

x-Q. 23. Mr. Stetson was the interpreter that acted between the witnesses and the Court on the trial of the action, was he not?

A. Yes, sir.

x-Q. 24. And you were called by whom to watch Mr. Stetson? 946

A. Mr. Chubb.

x-Q. 25. Then you have been assisting Mr. Chubb, haven't you?

A. I suppose so; yes, sir.

x-Q. 26. And you have been retained in his interest to watch the official interpreter in this case?

A. Yes, sir.

x-Q. 27. Isn't that it?

A. Yes, sir.

x-Q. 28. And you have been paid for your services 947 in this case by Mr. Chubb, have you not?

A. Well, I expect to be.

x-Q. 29. Did Mr. Chubb tell you what he wanted you to attend the examination of the witnesses for?

A. No, sir.

x-Q. 30. He did not?

A. He simply asked me to come.

x-Q. 31. How did he come to ask you?

A. He asked me to attend the examination. 948

x-Q. 32. Had you any previous acquaintance with him?

A. Oh, yes; I have known Mr. Chubb for several years.

x-Q. 33. Have you ever been in any cases with him before?

A. No, sir; not concerning French and English.

x-Q. 34. Concerning anything?

949 A. Oh, yes.

x Q. 35. What cases?

A. The case of the *J. W. Parker.*

x-Q. 36. Then you are Mr. Chubb's French translator; isn't that it?

A. I should hardly say so; I suppose he asks me when he wants me.

x-Q. 37. But whenever he wants you, you act as his translator?

A. Yes, sir.

950 x-Q. 38. And his interpreter?

A. Yes, sir.

x.Q. 39. Do you know why Mr. Chubb didn't ask the official interpreter to translate this document?

A. I don't know, sir.

x Q. 40. And you can't recollect any instance where you translated a French document into English in any judicial proceeding?

A. No, sir; not where there has been litigation.

x Q. 41. You have a statement here, "The col-
951 lision has certainly been caused by the error of judgment of the two pilots, and by their want of agreement"?

A. Yes, sir.

x-Q. 42. Do you mean to swear that that is a true translation of the original into English?

A. As near as it can possibly be; yes, sir.

x-Q. 43. By "as near as it can possibly be," you mean as near as you can get at it?

A. Yes, sir.

952 x-Q. 43½. Isn't the word "entente" used in that sentence?

A. I don't recollect.

x Q. 44. (Showing witness paper.) Isn't the French word "entente" used in that sentence?

A. Yes, sir.

x-Q. 45. Do you know the meaning of that word?

A. Yes, sir.

x-Q. 46. What is the meaning? 953

A. Understanding.

x-Q. 47. Has it any other meaning?

A. Yes, sir; it means agreement.

x-Q. 48. Has it any other meaning?

A. I don't recollect that it has, now.

x-Q. 49. Can you give any other definition of the signification of that term in French?

A. "Entente cordiale," cordial understanding—an amiable understanding.

x-Q. 50. I am not asking you for forms of expres- 954
sion in French; I am asking yon to give me in English any equivalent of the French meaning of that word that you can think of?

A. I can't think of any other.

x-Q. 51. You don't think of any words except understanding and agreement?

A. No, sir; that is all that I understand.

x-Q. 52. Are you familiar with the standard dictionaries of the French language?

A. I know Spier's standard pretty well. 955

x-Q. 53. That isn't what I asked you; I asked you if you are familiar with the standard dictionaries of thd French language?

A. Yes, sir; I have used them constantly.

x-Q. 54. Just name them, will you?

A. Spier's and Surrenne.

x-Q. 55. Do you know of any other French dictionaries of standard quality?

A. No, I always used that.

x-Q. 56. You don't know of any other standard 956
French dictionary than Spier's and Surrennes?

A. No.

x-Q. 57. Did you ever hear of Littret's French dictionary?

A. Yes, sir; I forgot that.

x-Q. 58. Did yon ever hear of the dictionary of the Academie?

957 A. Yes.

x-Q. 59. Have you ever had occasion to use any one of these dictionaries?

A. No, sir.

x-Q. 60. Did you ever see Littret?

A. Yes, sir.

x-Q. 61. Have you a copy of Littret's Dictianary in your office or library at home?

A. No, sir.

x-Q. 62. Where did you ever see a copy of it?

958 A. In France.

x-Q. 63. How many years ago?

A. I am sure I don't recollect.

x-Q. 64. Can't you tell whether it was a year ago or twenty years ago?

A. No, much more.

x-Q. 65. Twenty years ago?

A. No, sir; not so much as twenty.

x-Q. 66. Well, how many years?

A. I am sure I don't know; fourteen or fifteen,

959 perhaps.

x-Q. 67. How long have you resided altogether in France?

A. Three years, perhaps.

x-Q. 68. When was that?

A. In 1864 or 1865.

x-Q. 69. Where have you lived since that time?

A. 1867 I came to America.

x-Q. 70. Where did you live before you spent your three years in France?

960 A. At school in England.

x-Q. 71. What is your position!

A. Clerk.

x-Q. 72. Clerk where?

A. Ralli Brothers.

x-Q. 73. What are your duties as such clerk?

A. Insurance, sir.

x-Q. 74. You are their insurance clerk?

A. Yes, sir. 961

x-Q. 75. You are perfectly sure that that is an accurate translation of the original French text?

A. As well as I can do.

x-Q. 76. Would you swear that it was absolutely correct?

A. No; I wouldn't swear that it is absolutely correct.

x-Q. 77. Do you believe that you, with your limited experience of three years in France and your subsequent residence since that time in America, 962 are competent to make an absolutely reliable translation for the use of a court of justice where the shades of meaning of words come into prominent play, and where the giving of one shade of meaning rather than another would have great effect in the determination of the Court?

A. I think so.

x-Q. 78. You believe that with your limited experience you could translate a document of that kind? 963

A. Yes, sir.

x-Q. 79. If you were told that you had made any mistakes here, would you be surprised?

A. No.

Signature waived.

Counsel for the French Transatlantique Company objects to the admission in evidence of the paper marked for Identification as Appellants' Exhibit A, upon the ground that the same has 964 not been sufficiently proved, and furthermore, counsel for the French Transatlantique Compagnie objects to the proposed translation offered in evidence upon the ground that the qualification of the witness who swears to having translated it is not sufficiently established.

965

EDWARD K. JONES, recalled for appellants:

By Mr. Chubb:

Q. 31. Did you not, Mr. Jones, decline to furnish me with a tracing or drawing showing the face of the telegraph instrument used to transmit orders from the bridge of *La Champagne* to her engine room?

A. I am not here for the purpose of answering
966 questions concerning transactions between counsel, and I decline to answer.

Q. 32. Did you not refuse to give me, or some one whom I should send a pass to go on board the steamship *La Champagne* to examine?

A. I decline to answer upon the same grounds.

Q. 33. Have you not heretofore——

The Witness: I shall not stay here, Mr. Chubb; this kind of nonsense calling counsel——

At this point counsel for the French Trans-
967 atlantique Compagnie withdrew, declining to be further questioned in regard to his professional relations to the case.

Adjourned till Friday, December 4, 1891, at 10 o'clock A. M.

Marked for identification Appellants' Exhibit A, November 24, 1891, J. A. S., Exr.

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Appellants' Exhibit A.—November 30, 1891.—J. A. S., Exr.

To the Captain of the British Steamship "Lisbonense, Port of New York.

Sir:

The within is a copy of my protest this day lodged with the French Consul at New York, concerning the collision between the French steamship *La Champagne* and the British steamship *Lisbonense* near Sandy Hook, on the morning of December 7th, 1890, the same exhibiting the notice of claim of my owners against your ship, as required by French law. 970

Very respectfully,

D Boyer,

Captaine du Paquebot *La Champagne.*

Copie du Rapport de mer du paquebot "La Champagne." 971

J'ai quitté le dock de New York le 6 Decembre, 1890, à midi 24 minutes, ayant à bord les dépêches, un plein chargement de merchandises diverses et 454 passagers. Le temps etant brumeux, j'ai conservé le remorgueur "Assistance" pour éclairer ma route; la brume est devenue de plus en plus épaisse à mesure que nous descendions la rivière et j'ai du jeter l'ancre dans la rode inferieure à 2 heures 20 minutes, la brume intense nous otant toute vue. 972

L'atmosphère s'est eclaircie dans la nuit; nous distinguions à 4 heures les feux de direction; j'ai appareillé toujours escorté par l'Assistance qui nous a aidés à contourner le *S. W. Spit* et qui a a continué de nous suivre dans le *main channel* que nous descendions prudemment, la machine à 35 tours, imprimant, au paquebot une vitesse d'environ 10

973 nœuds et demi. Un peu avant de passer le meridien de Sandy Hook nous avions aperçu un vapeur remontant le *South Channel* et nous montrant son feu rouge. Ce vapeur ne pouvait ne nous avoir pas aperçu car nous avions fait devant *Sandy Hook* le signal de nuit de la Compagnie, consistant en trois feu de Bengale, bleu, blanc, rouge, puis aussitot après nous avions brulé une torche bleue pour appeler le canot du pilote.

Pourtant, le relevement du vapeur restant sensi-
974 blement le meme, j'invitai le pilote à prendre guarde et il ordonna de donner un coup de sifflet auquel l'autre vapeur répondit. Voyant la distance entre les deux navires diminuer progressivement je recommendai encore au pilote d'être prudent et, comme le vapeur (que j'ai su plus tard etre le *Lisbonense* de Liverpool) continuait évidemment sa route sans que son relévement se modifiât, je n'hesiter pas à faire stopper la machine (5 heures 27′) et a la lancer en arrière à toute vitesse à 5 heures 28, ainsi que l'or-
975 donne l'article 18 des régles internationales, en même temps que j'indiquais ma manœuvre, à deux reprises, par les trois coups de sifflet réglementaires, C'est à cette decision que nous devons de n'avoir pas assiste à un désastre. La marche de la *Champagne* se ralentissant progressivement, le *Lisbonense* put réussir à passer devant nous, mais non complétement puisque son couronnement frappa notre étrave.

La choc fut assez faible pour que les seuls temoins
976 oculaires aient pu se douter qu'une collision venait de se produire. Nos mécaniciens eux mêmes ont cru que nous avions simplement heurté une bouée.

Je compris que nos avaries n'étaient pas de nature à compromettre la sécurité de mon batiment, et, comme cette impression fut rapidément corroborée par les rapports verbaux du 2d Capitaine et du maitre charpentier qui avaient constate que le dommage

était localisé sur l'avant de la première cloison 977
étanche, je m'enquis aussitot du *Lisbonense*. Mais, bien que quelques minutes à peine se fussent ecoulees depuis le moment de la collision ce vapeur avait rapidement disparu par le *Swash Channel* dans lequel mon tirant d'eau ne me permettait pas de le suivre. Il ne s'était aucunement préoccupé des nombreux passagers qu'il devait suppose être à mon bord. Il savait pourtant par mon signal qu'il avait abordé le paquebot français et il connaissait par le morceau de mon étrave resté dans son couronne- 978
ment que mon avant était fortement endommage.

C'est pourquoi j'estime qu'en cette circonstance le Capitaine et le pilote du *Lisbonense* ont manque au devoir de l'humanité la plus élémentaire. Le remorqueur Assistance qui nous convoyait toujours n'a pas vu davantage ce qu'etait devenu le *Lisbonense*. J'ai appris plus tard qu'il était entré directement á New-York où il s'était amarré à son dock.

La collision a été certainement causée par l'erreur d'appréciation des deux pilotes et par leur manque 979
d'entente. Le nôtre ètait persuadè que son collique modifierait la route on la vitesse du *Lisbonense*, non seulement parce qu'il avait respondu á notre sifflet, mais aussi parce que, en sa qualitè de pilote, il devait se rendre compte que les conditions particulieres dans lesquelles so trouvait placèe *La Champagne* nous empèchaient de manœvrer pour l'éviter. Il devait comprendre que nous ne pouvions executer l'article 16 des règles de la route á la mer et que nous nous trouvions dans les circonstances spèciales 980
viseès par l'article 23 de ces memes règles. Car il n'ignorait pas que mon batiment èvolue difficilement á cause de sa grande longueur ; il savait que notre grand tirant d'eau ne nous permettait pas de sortir du chenal et il devait se rendre compte que nous ne pouvions meme pas nous arréter sous peine d'être jetes sur les bancs par le courant de jusant

981 alors dans tout sa force. Cèst très probablement sous l'impression, de cette conviction que mon pilote continuait sa route. Quant au pilote du *Lisbonense* il aurait du s'apercevois aussi bien que nous qu'une collision, était imminente et, comme il avait toute libertè de manœvrer, comme il conduisait un navire de petite dimension et d'èvolution facile dont le tirant dèau lui permettait de passer sur tous les bancs du voisonage, comme il avait le courant debout lui permettant de stopper sans aucun danger,
982 rien ne peut le justifier de n'avoir fait aucune manœvre.

Or ce batimentn'a rienfaitpour eviter lacollision, violant ainsi les prescriptions des articles 18 et 23 des règles internationales.

En consequence de l'exposè qui prècede je declare protester tant en mon nom qu'au nom de la Compagnie Générale Transatlantique contre le vapeur anglais *Lisbonense* de Liverpool qui, par son imprudence, a occasioné la collision, relatée plus haut, me
983 réservant de signifier la présente protestation contre son capitaine et contre ses armateurs des que je serai en mesure le faire et de poursuivre en justice mon actionten endemnitès par suite du dommage cause.

Aprés la collision je suis reste pendant un quart d'heure sur le lieu de l'événcment me maintenant de mon mieux avec le secours de l'Assistance, puis j'ai évolué pour rentrer a New York, mon batiment n'étant pas état de naviguer en sécurite. Pendant l'evolution *La Champagne* a été drossee par le cour-
984 ant sur la bouée B No. 5 qui s'est prise sous nos formes de l'arrière a babord. Nous avons travaillé pendant longtemps sans réussir a dègager cette bouée et j'ai du mouiller une ancre pour empecher le courant de nous entrainer sur les banes. Puis, avec l'aide d'un nouveau remorquer nommé *Hudson* nous avons reussi à á nous débarasser de la bouée. J'ai fait ensuite route sur New York a petite vitesse

Le paquebot anglais *Etruria* se trouvait encore 985
mouillé à l'endroit meme où la brume nous avait arrétes l'un et l'autre. Sur ma demande le Capitaine de ce batiment a bien voulu se charger nos dèpéches qui sans son amabilité, auraient été retardees à New York pendant quatre jours. Je suis arrivé au dock de la Compagnie sans autre incident.

Au cours des événement qui prècédent je n'ai en qu'a me louer de mes officiers ainsi que de mon èquipage. Tous ont fait preuve d'obéissance, de sangfroid et de dévoument. 986

Je clos ici mon rapport de mer certifié sincère et de bonne foi pour servir á ce que de droit, me réservant de l'amplifier ultèrieurment si besoin est.

NEW YORK, le 8 Dècembre, 1890.

Pour copie conforme,

LE CAPITAINE.

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Appellants' Exhibit B. November 30, 1891.

[*Translation from French.*]

COPY OF THE MARINE PROTEST OF THE STEAMSHIP "LA CHAMPAGNE."

I left the dock at New York on the 6th of December, 1890, at 24 minutes past twelve o'clock noon, having on board the mails, a full cargo of general
990 merchandise and 454 passengers.

The weather being foggy, I kept the tugboat *Assistance* to make clear my road. The fog became denser as we proceeded down the river, and I was obliged to drop anchor in the lower bay at 20 minutes past two o'clock in the afternoon, the thick fog then concealing all objects from view. The atmosphere cleared up during the night, at 4 o'clock in the morning we could see the directing lights. We got under way, always escorted by the tugboat *Assist-*
991 *ance*, which helped us to turn around the S. W. Spit, and which has continued to follow us down the Main Channel, through which we were proceeding cautiously, the engines making 35 revolutions per minute, and giving to the steamer a speed of about 10½ knots. Shortly before passing the meridian at Sandy Hook, we saw a steamer coming up the South Channel, showing us her red light. This steamer could not but have seen us because we had shown our company's night signal abreast of Sandy
992 Hook, consisting of three Bengal lights, blue, white and red; and a little while after we had burned a blue light to call the pilot's boat. However, the bearing of the steamer remaining plainly the same, I warned the pilot to be careful, and he ordered a blast of the whistle to be blown, to which the other steamers replied.

Seeing that the distance between the two steamers

was rapidly decreasing, I again cautioned the pilot 993
to be prudent, and as the steamer (which I knew later to be the *Lisbonense* of Liverpool) plainly kept on her course without changing her bearing, I did not hesitate ordering the engines stopped (5 o'clock 27 minutes), backed her at full speed at 28 minutes past 5 o'clock, as per Article 18 of the International Rules, indicating at the same time my manœuvre twice in succession, by giving three customary blasts of the whistle. It is to this decision that we did not take part in a disaster. The headway of 994
La Champagne decreasing gradually, the *Lisbonense* succeeded in passing in front of us, but not completely, as her quarter struck our bows.

The shock was so very feeble that only eyewitnesses could have suspected that a collision had taken place. Our engineers themselves thought that we had merely struck a buoy. I understood that our damages were not of such a nature as to endanger the safety of my vessel, and as this impression was quickly confirmed by the verbal reports of the 995
second captain and of the master carpenter, who stated that the damage was localized to the forward part of the first water-tight compartment, I looked at once for the *Lisbonense*, but notwithstanding that only a few minutes had elapsed since the moment of the collision, that steamer had disappeared rapidly through the Swash Channel, in which my draft of water did not allow me to follow her.

She did not concern herself at all with the numer- 996
ous passengers which she ought to have supposed I had on board. She knew, moreover, by my signal that she had come into collision with the French mail steamer, and he knew by the piece of my stem which had remained in his quarter that my bow had been greatly damaged. This is why I think that, under the circumstances, the captain and the pilot

997 of the *Lisbonense* have failed in the most elementary duty of humanity.

The tugboat *Assistance*, which was still with us, likewise did not see what had become of the *Lisbonense*. I learned afterwards that she had made direct for New York, and was fast at her dock.

The collision has certainly been caused by the error of judgment of the two pilots, and by their want of agreement. Our pilot was convinced that his colleague would either alter the course or the
998 speed of the *Lisbonense*, not only because he had answered our whistle, but also because in his capacity of pilot he ought to have realized that the particular conditions in which *La Champagne* found herself, hindered us from manœuvring so as to keep out of his way. He ought to have understood that we were unable to follow Article No. 16 of the Rules of the Road at Sea, and that we found ourselves in the special circumstances anticipated (visees) by Article No. 23 of the same rules. For he could not
999 be ignorant that my vessel manœuvred with difficulty on account of her great length, and he knew that our great draft of water would not permit us to leave the channel, and he ought to have realized that we could not stop without being thrown on the banks by the current, which at the time was running out its full force. It is very probable under the impression of this conviction that my pilot continued his course. As to the pilot of the *Lisbonense*, he ought to have perceived, as well as we, that a
1000 collision was imminent, and as he had full liberty to manœuvre, as he had charge of a steamer of small dimensions and easy handling, and whose draft permitted her to cross over the adjacent banks, and he could have stopped her with safety, having the current against her, nothing can justify him in not having made any manœuvre.

This steamer did nothing to avoid the collision,

violating, therefore, Articles Nos. 18 and 20 of the 1001
International Rules.

In consequence of the matters aforesaid, I hereby protest both in my name, and that of the Compagnie Generale Transatlantique, against the English steamship *Lisbonense* of Liverpool, which by her imprudence has caused the collision above stated, reserving to myself the right to present this protest against her captain and against her owners, as soon as I am in a position to do so, and proceed against them at law, for the recovery of the dam- 1002
ages sustained.

After the collision I remained at the place of the accident for a quarter of an hour, keeping my position as well as I could, assisted by the tugboat *Assistance*, and then I turned round to return to New York, as my ship was not in a fit state to navigate in safety.

During the manœuvring *La Champagne* was thrown by the current against Buoy B No. 5, which entangled itself under our port quarter. We tried 1003
in vain for a long time without succeeding in disengaging this buoy, and I was obliged to drop an anchor to prevent the current from carrying us on to the banks. Afterwards, with the aid of another tugboat named the *Hudson*, we succeeded in getting rid of the buoy. I proceeded at once to New York at slow speed.

The English mail steamer *Etruria* still lay at anchor at the place where the fog had stopped both of us the night before. At my request her captain 1004
was kind enough to consent to my transferring the mails to his vessel, which otherwise would have been delayed over four days in New York. I made our Company's dock without further accident.

In the progress of the foregoing events, I had only reason to praise my officers as well as my crew, who all proved their obedience, coolness and devotion.

1005 I here close my protest, certified, sincere, and in good faith, to serve as occasion may require, reserving to myself to extend it later if need be.

NEW YORK, December 8, 1890.

For true copy,

THE CAPTAIN.

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NEW YORK, December 4, 1891.

Met pursuant to adjournment.

Present—Counsel, as before.

Mr. Chubb, having desired to use an interpreter of his selection to interpret the testimony of the witnesses about to be examined, on Mr. Jones' objection, the Commissioner appointed John Langa to act as interpreter, 1010
and duly swore him to act as such.

FRANCOIS BUREAU, sworn for the appellants, and examined through the interpreter, testified as follows:

By Mr. Chubb:

Q. 1. You were the chief officer of the steamship *La Champagne* in December, 1890?

A. Yes, sir. 1011

Mr. Jones states that he has noticed errors in the translation of the oath to the witness by the interpreter, and requests that Mr. Stetson be substituted as interpreter, as he was the interpreter used in the Court below.

Mr. Chubb objects on the ground that Mr. Stetson is not an official interpreter, and was paid by Mr. Jones, and that Mr. Stetson is unfit to act as interpreter.

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The Commissioner directs the examination to proceed with the interpreter already selected.

Q. 2. Will you describe the machine or apparatus by which, in the engine-room of that steamship, you received orders transmitted from the officer commanding the vessel?

1013 A. It was a year since, and I can scarcely recollect what happened ; it is more than a year, and I have no more a lucid recollection of what has been said after a year.

Q. 3. I ask you simply to describe the machine which transmits to the engineers on duty the orders of the commander from the bridge ?

A. It is a machine which is used on every steamer, and by means of certain signs we know the orders of the commander ; all the steamers have the
1014 same machine.

Q. 4. Now, will you state what are the signs you have mentioned by which you know the orders given ?

A. It is a quadrant, in which is marked all the signs of the commander ; for instance, back, forward, &c.

Q. 5. Will you state all the signs that are marked on it ?

A. First there is the sign "Stop," then "Atten-
1015 tion," then "Slowly ahead," then "Half speed ahead," and then "Full speed ahead." On one side of the quadrant there is "Go back" and "Go forward."

Mr. Jones : I object to this; it is not being translated accurately.

Mr. Chubb : I think the objection can be obviated by my putting this question :

Q. 6. Will you kindly draw on a sheet of paper the dial plate or quadrant which you have men-
1016 tioned, placing upon it the words which appear upon it in French, as it is in position in the engine-room of your vessel ?

The witness does as requested, and the drawing so made is offered in evidence, and marked Appellants' Exhibit 3, December 4, 1891, J. A. S., Exr.

Q. 7. Where you have written on Appellants'

Exhibit 3 the abbreviation "Lent't," you meant by 1017
that the French word "Lentment"?

A. It is not complete—that quadrant which I have just made. There are some other words there.

Q. 8. Will you complete it?

The witness completes the diagram, and the paper is again offered in evidence by appellants' counsel, retaining the same exhibit mark.

Objected to as immaterial and not proper evidence on appeal. 1018

CROSS-EXAMINED by Mr. Jones:

x-Q. 9. Captain Boyer is in the city, is he not?

Objected to as irresponsive to anything called for by the direct-examination, and also as being irrelevant.

A. Yes.

x-Q. 10. Have you seen him this morning?

Same objection. 1019

A. Yes.

x-Q. 11. The steamship *La Champagne* is also in New York?

A. Yes, sir.

x-Q. 12. There would be no difficulty of securing the attendance of Captain Boyer, if it was so desired, would there?

Same objection.

A. No, I think there would be no difficulty. At 1020
11 o'clock the captain will be on board.

x-Q. 13. My question is whether there would be any difficulty in obtaining the attendance of Captain Boyer here if the other side request his attendance or serve a subpœna on him?

A. I think not; I cannot tell the intention of the

1021 captain, but I think it will not be difficult to have him in attendance here.

CROSS-EXAMINED by Mr. Chubb *de bene esse*, subject to the foregoing exceptions on the part of the appellants:

x-Q. 14. Do you know Captain Boyer's handwriting when you see it?

A. Yes.

x-Q. 15. Will you look at the paper now shown
1022 you and marked Appellants' Exhibit A, November 30, 1891, J. A. S. Ex'r, and state whether the signature at the foot of the first page is that of Captain Boyer?

A. Yes.

By Mr Jones:

x-Q. 16. Are you or are you not familiar with the fact that the original protest of Captain Boyer was subsequently extended and added to upon the
1023 consular record in this city?

Objected to as incompetent and immaterial.

A. No.

x-Q. 17. Did you, in common with the other officers of the ship, sign an extended protest in the office of the French Consul in this city concerning the collision with the steamer *Lisbonense?*

Same objection.

1024 Q. No, I didn't sign any protest.

x-Q. 18. Did you go to the Consul's office at all?

Same objection.

A. Never.

x-Q. 19. You were present at the trial of this case before Judge Brown, were you not?

A. Yes.

x-Q. 20. And you were examined as a witness in 1025
that case?

A. Yes, I have been asked questions.

x-Q. 21. And you were cross-examined by Mr. Chubb?

A. Yes; I remember that he was present.

Signature waived.

T. J. SHIPTON GREEN, sworn and examined for 1026
appellants:

By Mr. Chubb:

Q. 1. You are the agent in this city of the appellants, Mr. Green?

A. I am.

Q. 2. Will you kindly look at the paper now shown you which is marked Appellants' Exhibit A, November 30, 1891, J. A. S., Ex'r., and state whether or not you have seen the same before, and 1027
if yea, when and where?

A. Yes, I have seen this; the captain of the *Lisbonense* gave it to me about two days after the collision with the *Champagne* with a card with Coudert Brothers on.

Q. 3. What was the captain's name?

A. King.

Q. 4. What did you do with the document the captain then gave you?

A. I gave it to you, and since then I have not 1028
seen it till now.

CROSS-EXAMINED by Mr. Jones:

x-Q. 5. Can you fix the date that you gave it to Mr. Chubb?

A. It was shortly after I received it.

x Q. 6. Well, about how many days after the collision?

1029 A. It would only be a few days after.

x-Q. 7. So that it was in Mr. Chubb's possession when the case was tried in May last?

A. Oh, yes.

x-Q. 8. And long before?

A. Well, I must have given it to him shortly after the collision.

x-Q. 9. And you were present at the trial in the District Court?

A. No, I don't think I was; I was there one day
1030 for an hour and that was all.

x-Q. 10. But you were there at least once during the progress of the trial?

A. Yes, I was there once.

x-Q. 11. At least once.

A. I think only once; if I remember right, it was only once.

x-Q. 12. You were in the city and could have attended at any time during the progress of the trial, could you not?

1031 Objected to as irrelevant and immaterial and irresponsive to anything brought out on the direct examination.

A. I am a very busy person; I haven't time to attend to these things.

x-Q. 13. You were present in the City of New York during each day of the trial of this case? That is the question I ask you.

A. I couldn't say for certain; I might have been
1032 away.

x-Q. 14. Do you remember being out of the city?

A. No, it is so long ago.

x-Q. 15. Well, you have given pretty close attention to this case, haven't yon?

Objected to.

A. Not as close as you imagine.

x-Q. 16. Haven't you been present at a number of 1033
sittings where witnesses have been examined?

A. No.

x-Q. 17. You are quite sure of that, are you?

A. Pretty well. I have left it to Mr. Chubb.

x-Q. 18. One of the sheets of this paper is detached from the others, is it not?

A. It is.

x-Q. 19. Do you know how that occurred?

A. Indeed I do not.

1034

Signature waived.

1035

1036

1037 Mr. Jones: I desire the Commissioner to note on the record that the sheet containing the last three pages of the paper marked "Appellants' Exhibit A, November 30, 1891," is detached from the body of the paper itself.

The Commissioner so notes.

Objected to by appellants' counsel.

Mr. Jones: I desire to apply for an adjournment until some hour this afternoon to be named by the
1038 Commissioner in order to enable me to adduce proof that the alleged protest offered in evidence here is not complete, and I wish to state that I have consented from day to day to go on with this examination without any notice from the other side of the names of the witnesses produced to be examined; there has been the greatest informality observed in that respect, and I suggest, in view of a speedy closing of the testimony on appeal, that a session be had this afternoon so that I can complete
1039 my part of this proceeding.

Objected to by Mr. Chubb on the ground that the notice is too short.

Mr. Jones: If that objection is insisted upon, of course I shall give the usual notice of examination.

Mr. Chubb: If the Commissioner please, if the witnesses whom it is proposed to call are witnesses who are about to go to sea, I will make my other engagement stand aside, and
1040 come this afternoon, but if they are not such witnesses, I should like until next week.

Mr. Jones: Will the gentleman on the other side name the time at which he can attend such examination, and state whether or not he desires formal notice to be given?

Mr. Chubb: I do not require formal notice to

be given ; if it is a necessity, I will make all my engagements stand aside. 1041

Mr. Jones : It is not a matter of necessity, Mr. Commissioner ; I can prove this matter by a number of witnesses ; I make the suggestion merely in order that there shall be the least possible delay in closing this evidence.

Mr. Chubb : Then I will say to-morrow at eleven o'clock.

The Commissioner : Does that suit you, Mr. Jones ? 1042

Mr. Jones : Yes.

NEW YORK, December 5, 1891.

Met pursuant to adjournment.

Present --Counsel as before.

Counsel for the French Steamship Company calls attention to the fact that the translation or alleged translation of Appellants' Exhibit A, which said translation is marked Appellants' Exibit B, appears to be interlined in the handwriting of counsel for the *Lisbonense*, and he calls upon counsel for the *Lisbonense* to explain those interlineations. 1043

Counsel for the *Lisbonense* states that there are no interlineations there to his knowledge that were not there when the paper was offered in evidence and examined by counsel for the appellee. 1044

Mr. Jones : I call upon counsel on the other side to reproduce the translator of this document for examination as I was not present when the document was introduced in evidence.

Mr. Chubb : Counsel having cross-examined the witness and the testimony being closed,

1045 counsel for the *Lisbonense* has nothing further to do upon the point.

Mr. Jones: I give notice to counsel on the other side that I shall move to suppress this translation upon the ground that interlineations therein appear in frequent places in the handwriting of counsel on the other side. Is the testimony for the *Lisbonense* on appeal closed?

Mr. Chubb: With the addition that I again offer
1046 in evidence, upon the testimony of Mr. Green and Mr. Francois Bureau, the exhibit marked Appellants' Exhibit A, it is now closed.

Mr. Jones: I object to the admission of the said Exhibit A, on the ground, first, that the same is incompetent and inadmissible, and, secondly, that it appears by the testimony of witnesses in this case that the same exhibit is not proper evidence on appeal, and I move to strike out the said Exhibit A, and give notice to counsel on the other side that on
1047 the opening of the Court of Appeals I shall make a motion to suppress the same, together with all the depositions that have been offered in support thereof.

I also reserve the right, after the hearing and decision of the Court upon the said motion, to correct the inaccuracies of translation of the said document in case the Court shall decide that the same is admissible, and also in that event to introduce such further testimony in behalf of *La Lhampagne* as I
1048 may be advised.

1049

U. S. CIRCUIT COURT OF APPEALS,

FOR THE SECOND CIRCUIT.

ROBERT SINGLEHURST *et al.*,
Appellants,

vs.

LA COMPAGNIE GENERALE TRANSATLANTIQUE,
Appellee.

1050

UNITED STATES OF AMERICA,
Southern District of New York. } ss.:

I, JOHN A. SHIELDS, United States Commissioner for the Southern District of New York, do hereby certify that on the days indicated in the foregoing depositions I was attended by Sidney Chubb, Esq., 1051
of course for appellants, and Edward K. Jones, Esq., of counsel for appellees, and by the witnesses Richard Tone Pettit, Edward K. Jones, Hartley G. Pelletier, Joseph B. Jones, Lawrence Phillips, Francois Bureau and T. G. Shipton Green; that the said witnesses were by me first carefully examined and cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the within entitled cause, and thereupon gave their depositions, which were taken down in part by a clerk, and in 1052
part by a stenographer appointed by me for that purpose, in the presence of the respective witnesses and from their statements.

I further certify that a notification of the time and place of taking the said depositions signed by Sidney Chubb, proctor for appellants, and was made out and served on Coudert Brothers, proctors

1503 for appellees, as appears from said notice hereto annexed.

And I do further certify that I am not of counsel nor attorney for either of the parties in the said deposition and caption named, nor in any way interested in the event of the cause named in said caption.

In testimony whereof, I have hereunto set my hand and seal this 9th day of December, in the year of our Lord one thousand eight hundred and ninety,
1504 and of the Independence of the United States the one hundred and sixteenth.

[SEAL.] JOHN A. SHIELDS,
United States Commissioner, duly appointed by the Circuit Court of the United States, for the Southern District of New York, in the Second Circuit.

1505

1506

U. S. CIRCUIT COURT OF APPEALS, 1057

FOR THE SECOND CIRCUIT.

ROBERT SINGLEHURST and others,
Cross-Libellants and Appl'ts,

AGAINST

LA COMPAGNIE GENERALE TRANSATLANTIQUE, 1058
Libellant and Appellee.

On the annexed affidavit of Edward K. Jones, Esq., verified the 9th day of December, 1891, and upon the record on appeal in this cause, it is

Ordered, that the appellants or their Proctor show cause before this Court at a Stated Term thereof to be held in the United States Court House in the City of New York, on the 14th day 1059
of December, 1891, at 11 o'clock in the forenoon, or as soon thereafter as counsel can be heard, why the depositions of Richard Tone Pettit, Edward K. Jones, Hartley G. Pelletier, Lawrence Phillips, Joseph B. Jones, Shipton Green and Francois Bureau, and the respective exhibits sought to be proved by them, which are marked respectively "Appellant's Exhibits A, B and C," should not be suppressed and stricken out, and why the appellee should not have such other or further order 1060
or relief in the premises as may be just and proper.

Let a copy of this order be served on the Proctor for the appellants on or before the 11th day of December, 1891.

Dated New York, December 9th, 1891.

E. HENRY LACOMBE.

1061

UNITED STATES CIRCUIT COURT OF APPEALS,

FOR THE SECOND CIRCUIT.

ROBERT SINGLEHURST and others,
Cross-Libellants and Applts.,

1062 AGAINST

LA COMPAGNIE GENERALE TRANSATLANTIQUE,
Libellant and Appellee.

UNITED STATES OF AMERICA,
Southern District of New York. } ss.:

EDWARD K. JONES, being duly sworn, deposes
1063 and says:

That he is one of the Proctors and counsel for the above-named La Compagnie Generale Transatlantique, and has conducted this cause from its commencement.

This suit grew out of a collision, which occurred of the 6th day of December, 1890, just outside of Sandy Hook, between the French steamship "La Champagne" and the British steamship "Lisbonense." "La Champagne" was on a voyage outward
1064 from New York to Havre, and the "Lisbonense" was on a voyage from Brazil to New York, and was about to enter the channel or fairway leading into the Harbor of New York.

A libel was shortly afterwards filed in behalf of the owners of "La Champagne" and a cross-libel was subsequently filed in behalf of the owners of the "Lisbonense."

The cause was tried before the Hon. Addison 1065
Brown, Judge of the District Court for the Southern District of New York, on the 9th, 10th and 12th days of June, 1891. An opinion was subsequently delivered by the said Judge, holding that "La Champagne" was free from fault and that the collission was caused solely by the neglience of the persons in charge of the navigation of the "Lisbonense." A decree was subsequently entered sustaining the libel of the owners of "La Champagne," namely, La Compagnie Generale Transatlantique, 1066
and dismissing the cross libel of the owners of the "Lisbonense."

The owners of the "Lisbonense" thereupon appealed to this Court from the decree of the District Court dismissing their cross-libel.

The record on appeal was filed just before the opening of the last session of this Court in October just past, and in order to enable the appellants to so file the record, the counsel for La Compagnie Generale Transatlantique consented that the Clerk of the 1067
District Court might certify the same without a comparison with the original papers on file. This consent was obtained by the counsel for the appellants upon the representation that he was desirous of having the cause heard at that session of the Court, and that he was in danger of losing the opportunity of such hearing if counsel were to insist upon an actual comparison of the copy of the record with the original papers, because such comparison would consume several days of time, and 1068
furthermore, the Clerk of the District Court was then, as he said, too busy to immediately take up the matter. Under these circumstances the record in this Court was filed and printed and the cause placed upon the calendar and reached in its order at the last session of the Court, whereupon the counsel for the appellants without having filed his brief as re-

1069 quired by the rules of this Court made an application that the case stand over until the next session of this Court, which is fixed to be held on the 2nd Monday of December, 1891.

No intimation was given at that time, nor at any time previously, that the appellants desired to take additional testimony on appeal. Afterwards, however, such intention was manifested, and the appellants thereupon proceeded to take testimony for the purpose of proving the contents of a copy of the
1070 protest made by Captain Boyer, the Master of "La Champagne," which was served on the captain of the "Lisbonense" a day or two after the collision, and for that purpose called as witnesses Richard Tone Pettit, Edward K. Jones, Hartley G. Pelletier, Lawrence Phillips, Joseph B. Jones, Shipton Green and Francois Bureau.

Mr. Pelletier and Mr. Pettit are, and at the time of the trial in the Court below were, respectively managing clerk and assistant managing clerk in the
1071 office of the proctors for the appellee, and were accessible to the appellants and could have been called as witnesses for them at the trial; Mr. Edward K. Jones is the counsel for the appellee, and tried the case in its behalf in the Court below; Mr. Phillips and Mr. Joseph B. Jones were in the employ of the appellants and were also present at the trial; and Mr. Bureau is the chief engineer of "La Champagne," and was present and examined as a witness at the trial; and Mr. Green is agent of the
1072 appellants, and was also present at the trial but was not examined.

Another item of supposed new testimony on appeal was further sought to be established by calling the engineer of "La Champagne" to testify as to the marks and division of the telegraphic dial in the engine room of the steamer and communicating with the officers in command on the bridge.

Neither the said protest nor the matter contained 1073
in the said dial was brought out or alluded to in any way at the trial in the District Court, although the Captain making the protest, as well as the engineer who was called to prove the dial in the engine room, were both examined and cross-examined at the trial of the cause in the District Court; and it is now proved by the witnesses attempting to establish the service of the protest above referred to, that the same, after being received, was at once delivered by the Captain of the "Lisbonense" to the agent of 1074
the line to which that steamer belongs in the City of New York, and that he immediately and long before the trial of the cause delivered it into the hands of the Proctor and Counsel of the "Lisbonense," in whose hands it has ever since remained.

No reason is shown, or attempted to be shown, either on the record or otherwise, why these supposed matters of evidence were not produced at the trial in the Court below; nor is it shown or attempted to be shown either on the record or other- 1075
wise, nor is it the fact, that the captain and engineer of "La Champagne" were examined or cross-examined with respect to the said protest and engine room dial at the trial in the Court below. Neither is the object of introducing this supposed evidence on appeal in any manner stated or avowed. Notwithstanding these facts, however, when the protest referred to was thus sought to be proved and put in evidence, I offered to consent that the same as extended on the record of the French Con- 1076
sul in this City (and I aver that the same was so extended by further explanatory statements,) might go upon the record, and for that purpose produced the chancellor of the Consulate before the Commissioner with the record of the protest and extension. This offer was refused, inasmuch as, I believe, the appellants' object was to present the matter to the

1077 Court in the partial and unexplained condition in which the same stood in the original protest.

I aver, furthermore, that Captain Boyer, who, as above stated, made the protest of "La Champagne" thus attempted to be proved, was in the City of New York, with the steamship "La Champagne" at the time Mr. Bureau, his Chief Engineer above referred to, was examined to identify the said protest and dial, and that such fact was then made known to the appellant's counsel; but though the
1078 Chief Engineer was subpœnaed from the ship by the appellants, Captain Boyer was not called.

The protest thus sought to be put in evidence is in French. Instead of calling the Interpreter who acted in the Court below, the appellants called a man by the name of Lawrence Phillips, one of the witnesses above referred to, to translate the same. This witness was the personal assistant of the counsel for the appellants throughout the examination of witnesses, and at the trial in the Court below,
1079 and I aver that there are no less than seventy three (73) mistakes and misstatements in that translation, many of which are serious, and tend to misrepresent its contents. I have noted on the record the fact that this translation is incorrect, and have reserved the right to correct it in the event that this Court shall hold that the said protest is proper evidence on appeal.

Upon the foregoing facts, and upon the record on appeal, a motion is made that the depositions of all
1080 the above named witnesses be suppressed.

I also ask, inasmuch as the regular motion day will not occur until several days after the opening of the next session of this Court, that an order be granted requiring the appellants or their proctor to show cause why the said depositions should not be suppressed, and that the said order be returnable at

the opening of this Court, on the first day of its next session. 1081

EDWARD K. JONES.

Subscribed and sworn to before me this 9th day of December, 1891.

FREDERICK KOPF,
Notary Public (34),
[L. S.] N. Y. Co.

1082

UNITED STATES CIRCUIT COURT OF APPEALS.

FOR THE SECOND CIRCUIT.

ROBERT SINGLEHURST *et al.*,
Appellants,

LA COMPAGNIE GENERALE TRANSATLANTIQUE. 1083
Appellee.

Southern District of New York, ss. :

SIDNEY CHUBB, being duly sworn, deposes and says, that he is the Proctor for Singlehurst *et al.*, the appellants herein.

That an order to show cause and an affidavit of Edward K. Jones was served upon him on the tenth day of December, 1891, subsequent to two o'clock in the afternoon thereof. 1084

That the statement in the first six lines of the second page of said affidavit, as follows,—"A decree was subsequently entered sustaining the libel of the owners of the *La Champagne*, namely, La Compagnie Generale Transatlantique, and dismiss-

1085 ing the cross-libel of the owners of the *Lisbonense*"—
is inaccurate. That the fact is, that on the third day
of July, 1891, an interlocutory decree was entered
in the suit of La Compagnie Generale Transatlan-
tique *vs.* the Steamship *Lisbonense* and John King,
upon the motion of Messrs. Coudert Brothers ad-
judging the steamship *Lisbonense* at fault, and re-
ferring it to a Commissioner to ascertain and com-
pute the damages and report the same with all con-
venient speed. That thereafter, and on the sixth
1086 day of October, 1891, a final decree was entered on
motion of deponent in the suit of Robert Single-
hurst *et al.*, libellants, *vs.* La Compagnie Generale
Transatlantique, respondents, dismissing said libel
with costs taxed at the sum of $175.13. (Apostles,
p. 188.)

That the record herein was filed on Saturday, the
24th of October, 1891. That the consent obtained
by deponent from the Proctors for the appellee was
in writing, and is annexed to the original certified
1087 copy of the Apostles on file herein, and provided
that any errors that may be discovered by either
side may be corrected.

That the representation upon which deponent
asked said Jones to sign said consent was, that as
the record had been printed from the original pa-
pers which had by an order entered on consent been
taken from the files and given to the printer, any
errors would be simply printers' mistakes, and if a
comparison by the District Court Clerk's office were
1088 insisted upon, the delay would be so great, owing
to the press of naturalization business in said office,
that the record could not be filed in time to enable
said cause to be placed on the calendar then being
made up, and that deponent was afraid that a new
calendar would not be made up until the next term
of the Court, in October, 1892. Deponent avers
that even after having obtained said consent, it was

necessary for him to make a special personal appli- 1089
cation to the District Judge before he could have the certificate signed by the Clerk, which was done on the Saturday before this Court began the call of its calendar. That at the time of obtaining said consent it was stipulated between deponent and said E. K. Jones that neither side should press the case or should be required to argue the case before December of this year. That said consent was not put in writing for the reason stated by said Jones at the time, that he was afraid a consent signed by him 1090
might prejudice him in any action which he might take with reference to the objections which are noted by the Circuit Judge, and appearing of record at the top of page 198 of the Apostles herein.

That the statement at the top of page 3 of said Jones' affidavit, as follows: "No intimation was given at that time, nor at any time previously, that the appellants desired to take additional testimony on the appeal," is inaccurate. That on or prior to the 19th day of October, 1891, deponent served on 1091
said Jones a copy of his petition of appeal herein, containing the following words: "And on said appeal they intend to have the said cause heard anew upon the pleadings and proofs had and taken in the District Court, and upon further proofs to be taken in said Circuit Court of Appeals, and to seek a new decision upon the facts." That the said petition of appeal is printed at pages 193–195 of the Apostles herein.

That upon the call of the case on the Day Calen- 1092
dar, two days before the last adjournment of the Court, deponent asked to have the cause stand over until December, for the reason that it had been impossible to prepare for argument, owing to the short interval of time since the entry of the decree in the District Court. That after the call of said Day Calendar said Jones left the court room, and deponent

1093 went out after him for the express purpose of arranging for the taking of new testimony herein, and stated to said Jones that he desired to take the deposition of a witness who would prove the service upon deponent's clients of a copy of Captain Boyer's protest, with a notice thereof. That thereupon said Jones said it would not be necessary for deponent to take such testimony, as he, said Jones, would sign an admission of the fact. That shortly thereafter deponent left the city for four or five days,
1094 and immediately upon his return prepared a typewritten stipulation admitting that Richard Tone Pettit would testify to the service of the said paper, which was then produced and shown to said Jones, and has been printed as appellant's Exhibit A (new proofs, p. 30), which consent said Jones declined to sign, and did not sign, and thereupon deponent was forced to call witnesses in the endeavor to prove such service. That Captain King, upon whom said protest was served, being then at sea, deponent be-
1095 gan by taking the testimony of Richard Tone Pettit, followed by that of said Edward K. Jones and of Hartley G. Pelletier, but was unable to make proper proof of said service because the witnesses testified that they could not identify the document or Captain Boyer's signature. That said Jones then offered to produce the agent of the appellee in this port, Mr. A. Forget, to prove said signature, which offer deponent accepted, but said Jones thereupon withdrew from it. That deponent was unable to prove
1096 said document by causing a clerk of deponent's clients to witness the signature of Captain Boyer at the Custom House on his next arrival at this port, which was done, and the testimony of the witness, Joseph P. Jones, was taken thereto on the same day, and the document offered in evidence as appellants' Exhibit A.

That the offer made by the said E. K. Jones to

consent that the protest served upon Captain King 1097
be admitted in evidence, was coupled with a condition that deponent should also admit in evidence as part of deponent's case, an alleged extension thereof, no copy of which has ever been served upon nor shown to deponent nor his clients, and of which deponent had no knowledge, except the statement of its contents made by said Jones. That, moreover, deponent attended at the office of the French Consul, in this City, and asked to be permitted to examine the said protest, which permission was re- 1098
fused. Hereto annexed are copies of the deponent's letter to said Jones, marked A, informing him that deponent had been denied access to said document, and the reply thereto from said Jones, marked B, withdrawing his offer. That said offer to consent is also set out at page 17 of the record of the new proofs taken herein.

Deponent avers that he offered to make his own engagements stand aside in order to afford said Jones opportunity to take Captain Boyer's testi- 1 99
mony upon any point that he might desire, which offer was declined by said Jones, as appears at page 45 of the new proofs taken herein. That deponent also requested of said Jones a pass, to enable some one representing his (deponent's) clients to go on board *La Champagne* and inspect the telegraphic apparatus on the bridge, which said Jones at first agreed to give, but afterwards declined to do so, which offer and refusal deponent endeavored to prove by the testimony of said Jones at page 30 of 1100
the new proofs herein, but said Jones declined to answer the questions put to him.

That the interpreter who acted in the Court below was a gentleman employed and paid by said Jones, and was not the official interpreter—so far as deponent knows—of any Court. That the grounds of deponent's objection to calling George H.

1101 Statson as such interpreter were set out in the minutes taken by the stenographer, which minutes were stricken out at the direction of said Jones from the official record, but have since been transcribed by said stenographer at deponent's request, and are hereto annexed and marked C.

That the interpreter, Lawrence Phillips, was employed by deponent simply to check the accuracy of the translator employed by said Jones, and to inform deponent of the meaning of anything said
1102 in French which deponent might wish to have interpreted, and for no other purpose. That deponent has requested said Jones to inform him as to the particulars in which he claims the translation made by said Phillips is in error, but said request has been refused by said Jones, and deponent is now in entire ignorance as to the respects in which said translation is incorrect or is claimed so to be by said Jones. That hereto annexed are copies of deponent's request for information as to such alleged
1103 errors, and the answer thereto by said Jones denying such request, marked D and E.

That deponent has been at all times, and is still willing and ready to have said protest, Appellants' Exhibit A, correctly translated, and he believes that the same is correctly translated.

Deponent insists that the new proofs taken on behalf of the appellants herein is material and necessary to the determination of the appeal, and is relevant to points referred to in the written decision
1104 of the District Judge, but not referred to by counsel on the trial in the Court below, and that the appellants were within their rights in taking said testimony. That no objection was made upon the ground of appellants' rights to take no proofs on appeal until after such proofs were closed. That on the contrary, after deponent had announced that the appellants' proofs were substantially closed, a

time was fixed, upon motion of said Jones, for the taking of proofs in rebuttal, by said Jones on behalf of the appellee, his client, and no objection was made to the effect that the appellants were not entitled to take new proofs until deponent attended before the commissioner upon the application of said Jones to take said Jones' new proofs, as appears at page 45 of the new proofs. 1105

(Sgd.) SIDNEY CHUBB.

Sworn to before me this 14th day of December, 1891. 1106

EDWIN B. WOODS,
[L.S.] Notary Public,
Kings Co.

Certificate filed in N. Y. Co.

A.

SINGLEHURST, *et al.*
vs.
LA COMPAGNIE GENERALE, &C. 1107

DEC. 2, 1891.

Messrs. COUDERT BROTHERS,
City.

SIRS:

I beg to inform you that I went to-day, during office hours to the Consulate General of France in this city, and requested to be permitted to examine the protest made by Captain Boyer of *La Compagnie*, in December last, and that the request was refused. 1108
I thereupon said that I had been informed in writing by Messrs. Coudert Brothers that the original protest was open to inspection by the public, and I was then told that such was not the fact.

I am yours, &c.,

(Signed) SIDNEY CHUBB.

1109

B.

SINGLEHURST,
vs.
COM. GEN. TRANS.

NEW YORK, Dec, 1, 1891.

MR. SIDNEY CHUBB,
50 Wall St., City.

1110 DEAR SIR:

We know nothing of your failure to obtain information at the Consul's Office concerning the protest in the case of *La Champagne* beyond the statement of your letter, and all that we have to say is that we have never encountered difficulty in obtaining information whenever we have requested it and submitted to the rules and regulations of the Consulate.

We remind you that on the 24th ultimo, we ar-
1111 ranged to have the record in question produced before Commissioner Shields, when you commenced taking your new evidence on appeal, and that you were then at liberty to make full use of it, as the record shows.

As you refused to avail yourself of the opportunity thus afforded to you, we shall give ourselves no further concern in the matter; and as your whole course with respect to the proof of this paper has been such as to cause us a great deal of unneces-
1112 sary trouble and has impressed us with the belief that it was not your intention to lay the whole fact before the Court, we hereby withdraw our offer heretofore made to consent to the introduction of the whole record in the Consul's Office concerning the protest in question.

Should you desire to proceed further in the matter the forms and methods provided by law are

open to you. We shall not put ourselves to further trouble about it. 1113

Yours truly,
(Signed) COUDERT BROTHERS.

C.

Mr. Jones: I request the Commissioner to note in the proceedings of yesterday that the grounds and reasons supposed to render Mr. Stetson unfit to act as interpreter were not stated by counsel on the other side. 1114

Mr. Chubb: I object to the request on two grounds; first, that this is too late, the proofs for the appellant being closed, and, second, that it is inaccurate and untrue.

The Commissioner: The Commissioner's recollection is that Mr. Chubb said that the interpreter, Mr. Stetson, was biased, and in view of something that occurred after the proceedings in the District Court, he preferred that he should not be interpreter. 1115

(This was stricken out by consent of all parties.)

D.

SINGLEHURST
v.
LA COMPAGNIE &c.

Decr. 5, 1891.

MESSRS. COUDERT BROTHERS,
City. 1116

DEAR SIRS,

If you will kindly let me know the points as to which you think that our translation of Captain Boyer's protest is erroneous, I will, if I find any of them well taken, sign a consent that such corrections be made of record.

Very truly yours,
(Signed) SIDNEY CHUBB.

1117

E.

SINGLEHURST v. COM. GEN. TRANS.

New York, Dec. 5th, 1891.

SIDNEY CHUBB, Esq.
50 Wall Street,
New York City.

SIR:

1118 In reply to your note of to-day in which you say that if we will let you know the points as to which your translation of Captain Boyer's protest is erroneous you will, if you find any of them well taken, sign a consent that such correction be made of record, we have to say we cannot meet this request, first, because it is based upon the condition of your acceding to our corrections, and second, because we have heretofore found by experience with you that we can accomplish nothing by arrangements and consents.

1119 We prefer under these circumstances to rely upon testimony.

Very respectfully yours,
(Signed) COUDERT BROTHERS.

1120

UNITED STATES CIRCUIT COURT OF APPEALS, 1121

SECOND CIRCUIT.

ROBERT SINGLEHURST, *et al.*,

vs.

LA COMPAGNIE GENERALE TRANSATLANTIQUE. 1122

LACOMBE, Circuit Judge: This is a motion to suppress certain testimony taken in this Court by the libellant and appellant in an admiralty suit, after appeal from the District Court under the forty-ninth rule in admiralty. All of the witnesses, whose testimony is the subject of this motion, were accessible to the appellant, and could have been called by him at the trial in the District 1123
Court. They are the counsel for the appellee; two of the clerks in the office of the appellee; two persons in the employ of appellant, who were present at the trial; the agent of the appellant, who was also present at the trial; and the chief engineer of the appellee's steamer, who was examined at the trial. Another item of testimony is a protest made by the master of the said steamer, a copy of which was in the hands of proctor and counsel of the libellant before the trial in the District Court. It is 1124
conceded that, up to the time this motion was argued, no reason was shown, or attempted to be shown, either on the record or otherwise, why these supposed matters of evidence were not produced at the trial in the court below. No new allegations or amendments have been made in the pleadings.

Appellate courts in admiralty treat an appeal as

1125 a new trial, in which new pleadings and new proofs are permitted, in furtherance of justice. But it is not a matter of course to allow parties who have withheld evidence available to them in the District Court to present such evidence on appeal. Such was declared to be the law of this circuit in The Saunders, 23 Fed. Rep, 303, and The Stonington and The Wm. H. Payne, 25 Fed. Rep., 621. It is unnecessary to add anything to the discussion of this question in the case of The Saunders. The
1126 decision therein seems to be in entire accord with the authorities, and when objection is raised the party offering the new evidence should show some good reason, if any, why it was not produced before. It has, however, been the practice in this circuit to take such testimony without excusing its non-production below, where neither side has objected. Upon the hearing of this motion an affidavit was filed by the proctor for the appellant, stating that the new proofs are material and neces-
1127 sary to the determination of the appeal and "relevant to points referred to in the written decision of the district judge, but not referred to by counsel on the trial in the court below," which, it is contended, is sufficient excuse for failure to produce the evidence before. If this means that the district judge detected a weakness in the appellant's case, which counsel had overlooked, the bald statement of that fact is not sufficient. If it means that the district judge decided the case on facts not in proof, or
1128 upon assumptions and inferences not warranted by the evidence, such errors, for all that appears, may be corrected without new testimony. It appears, however, that no objection was interposed by the appellee to the taking of this new proof until such taking was completed. Although present and cross-examining the witnesses, its counsel did not raise the point that such witnesses were available or were ex-

amined at the trial below until their testimony in 1129
this Court was closed. Under these circumstances, we do not think he should be allowed to insist upon the suppression of such testimony, in view of the practice in this circuit, above referred to. If a party wishes to insist upon his rights in that regard, he should interpose his objections promptly, and not wait till his adversary has been put to the trouble and expense of taking the new proofs.

The other points argued by appellee in support of this motion should be determined on the argument 1130
of the appeal, not on motion to suppress. The motion is denied.

At a Stated Term of the United States Circuit Court of Appeals for the Second Circuit, held at the U. S. Court Rooms in the City of New York on the 25th day of January, 1892. 1131

Present:

HON. WILLIAM J. WALLACE,
HON. E. HENRY LACOMBE, } Judges.

ROBERT SINGLEHURST, *et al.*,
Appellants,
vs. 1132
LA COMPAGNIE GENERALE TRANSATLANTIQUE,
Appellee.

An order having been obtained upon affidavit and upon the record on appeal in this cause by the appellee

herein, La Compagnie Generale Transatlantique, requiring the appellants to show cause why the depositions of Richard Tone Pettit, Edward K. Jones, Hartley G. Pelletier, Lawrence Phillips, Joseph B. Jones, Shipton Green and Francois Bureau, and the respective exhibits sought to be proved by them, which are marked respectively "Appellants' Exhibits A, B, and C" should not be suppressed and stricken out, and why the appellee should not have such other and further order or relief in the premises as may be just and proper; and the said motion having been duly argued by counsel and due deliberation having been had in the premises,

Now on reading and filing the said order to show cause, together with the papers on which the same was granted, to wit, the affidavit of Edward K. Jones, verified on the 9th day of December, 1891, and the papers in opposition thereto, to wit, the affidavit of Sidney Chubb, verified on the 14th day of December, 1891, it is by the Court

Ordered, that the said motion to suppress the aforesaid depositions and the said exhibits, be and the same hereby is in all things denied.

And it appearing that the advocate for the appellee has reserved the right to introduce such further testimony in behalf of the appellee as he may be advised, it is

Further Ordered, that the appellee have until the 5th day of February, 1892, in which to take such further testimony as he may be advised, and that the appellants have ten days after the completion and printing of appellee's said further testimony in which to file their brief herein.

A Copy,

JOHN A. SHIELDS,

(Seal) Clerk.

1137

ROBERT SINGLEHURST, *et al.*,
Cross Libellants and Appellants.

vs.

LA COMPAGNIE GENERALE TRANSATLANTIQUE,
Libellants and Respondents.

Before John A. Shields, Esq., U. S. Commissioner.

1138

NEW YORK, February 4, 1892.

APPEARANCES.

SIDNEY CHUBB, Proctor for Appellants.
E. K. JONES, Proctor for Appellee.

Counsel for La Compagnie Generale Transatlantique produces a paper headed "Extrait du Registre des actes de la Navigation," from the Consulate General of France, at New York, and the same is marked for identification as La Champagne Exhibit A of this date. 1139

Objected to, first, on the groun l that it purports to be a copy of a paper the original of which has not been properly proved; second, that if the original had been offered it would be incompetent, irrelevant and immaterial; and third, on the ground that it is secondary evidence, and therefore inadmissible.

Counsel for appellant asks to be shown the paper which has just been marked for identification. 1140

Counsel for *La Champagne*, while not recognizing the right of opposing counsel to call for a paper not offered in evidence, nevertheless hands the same now for his inspection.

GEORGE H. STETSON, sworn and examined as a witness on behalf of the Appellees.

1141 By Mr. Jones:

1 Q. You reside in this city, do you not? A. I do.

2 Q. What is your business? A. Insurance.

3 Q You are the interpreter who acted in the District Court at the trial of this case in the examination and cross-examination of such witnesses as could not speak the English language? A. I was.

4 Q. Have you ever acted in any other cases?

A. Yes.

1142 5 Q. Have you acted in cases where the French language was necessary to be interpreted?

A. I have.

6 Q. Will you mention some of them?

A. I think one of the most important was the case of the *Iberia* v. *The Umbria*. I have had a great number of cases, quite a number.

7 Q. What experience have you had generally with and therefore of, the French language?

A. I have lived in France; I have been in business there. I have read a great deal and studied the
1143 language and conversed daily with people who use that language—every day of my life.

8 Q. And have for how many years?

A. For more than twelve years.

9 Q. State whether or not you are accustomed to the interpretation of the French language into English and the English language into the French language in cases involving maritime matters or subjects? A. I am.

1144 10 Q. State whether or not you are accustomed to carry on correspondence in French with respect to such matters?

A. I am; not so much from the English into the French as the other way; but at the same time I am entirely familiar with it, and have great confidence that I am able to do so.

11 Q. Does that arise in the course of your business? A. Yes.

12 Q. I show you a paper marked for identification *La Champagne* Exhibit A, February 4, 1892, J. A. S., U. S. Com., and ask you whether or not you have seen that paper before, and whether or not you have made a translation thereof? 1145

MR. CHUBB: Objected to, that a paper that is not in evidence cannot be shown to the witness for the purpose of translation.

Objection overruled. Exception taken.

A. I have seen it before and made a translation of it. 1146

13 Q. Will you please produce the translation you refer to now.

Same objection and ruling. Exception.

A. I produce the translation here, and will say that it differs from the document translated in the following particulars: Near the end of the original document is a letter in English that I have merely produced in English, and have not added the substance of the letter translated into the French which appears in the document. 1147

14 Q. Please mention those letters and figures more particularly?

A. The letter is a letter from Henry Picking, Captain in the U. S. Navy and Inspector General of the United States to the Lighthouse Department. There is the letter. It is put in in English, and some one has translated it into French and added it on. 1148

15 Q. If I understand you aright, in the translation of the document referred to you have merely copied the portion of the letter in English and have made no attempt to translate the French translation of the English part to ascertain whether or not that French translation is correct?

A. Yes. I can read it in one minute and tell you.

1149 As the letter seems to be in English, I did not suppose that was necessary.

The translation testified to by the witness is marked for identification as *La Champagne* Exhibit B, of this date.

Mr. Chubb: The objection is renewed.

Same ruling. Exception taken.

16 Q. Will you first read in English the part or parts you have not translated, and then examine
1150 the French translation thereof which appears in the original, and state whether or not such translation of that English passage is correct?

A. It is. It is a sufficiently good translation; but there is a slight difference. It is an unimportant difference.

17 Q. Read the English?

A. "Replying to yours per bearer, I beg to say that buoy B 3 being out of place was put back on the 10th inst.; buoy B 5 was permanently removed
1151 eight months ago; buoy 6 on the same day had disappeared altogether, and a new buoy was put in its place. (Signed) Henry Picking, Capt. U. S. N., Inspector, United States General Lighthouse Department." That has been translated into the French.

18 Q. And is the French translation of that in the original paper the only part that you have not translated in the paper which has been marked for identification *La Champagne* Exhibit B of this date?

A. It is, with the exception of one or two little
1152 notes on the margin where erasures or slight corrections had been made. I did not go to the trouble to correct those, where it says "approved" "erasures, &c., approved," or whatever it may be.

19 Q. Have you read the translation of appellant's Exhibit A which said translation is marked Exhibit B, both of November 30, 1891, and appearing respectively on pages 30 and 35 of a printed

record marked "New Proofs" under the title of 1153
this cause?

A. I have read what was given to me. I have read what was given to me by the Marshal as the printer's proof.

20 Q. Have you that proof with you? A. I have that here.

21 Q. Given to you by the Marshal of this Court? A. I understand so.

22 Q. Take that proof and compare it with the finished print, and state whether or not it is the 1154
same? A. It appears to be the same.

23 Q. Look at the French text marked Appellant's Exhibit on page 30, as the same appears in the finished print, and see whether the proof given to you by the Marshal as the same is the same? A. Proof of the French?

24 Q. Yes. A. I corrected a lot of errors on the proof, and I see there are some here still that have not been corrected. At the request of the Marshal he asked me if I would not see whether the printer 1155
had correctly set up the French, and he had not, and I corrected quite a lot of errors, and I see some exist here yet.

25 Q. All I asked you is whether or not the proof you received from the Marshal for the purpose of examination, and which you now have in your hands, is the same as the finished print appearing in the new proofs commencing at page 31? A. It seems to be the same.

26 Q. I wish you would look at both of the doc- 1156
uments referred to and make yourself absolutely sure that they are the same, and that there have been no changes in them since you received the proof given to you by the Marshal? A. The substance appears to be the same. There are some slight typographical errors. The material is the same. I do not know that the typographical errors

affect the sense at all. This appears to be the same.

27 Q. I wish you to understand precisely my question. You have examined the French text and the translation in the proof? A. I have.

28 Q. And I want to know if there is any variation between the proof which you have examined and the finished proof which has just been placed in your hand? A. Yes. This finished print is corrected in some places. It has been made right where I see there was wrong spelling of words, and the placing of letters, &c. This is more correct than the original was.

29 Q. How about the translation, have there been any corrections in that at all? A. I do not see any.

30 Q. Will you go over the original French text, as the same appears in the finished proof, and state whether or not any errors appear in the purported translation thereof beginning on page 35 of the finnished proof and marked Appellant's Exhibit B; and if so, state what they are? A. I have looked it over, going through it, and I see there are. Shall I state them in detail?

31 Q. I wish you would state them in detail? A. In the second line of the translation the original French reads "24 minutes past noon." It is translated in the document before me, "24 minutes past twelve o'clock, noon."

32 Q. Proceed. A. Of course that could be varied by saying 60 minutes past twelve, and in all sorts of ways. I am giving now the differences. Lower down the original French reads: "The fog became thicker and thicker;" and the translation reads: "The fog became denser."

On the next line I make the original text to read properly "I was obliged to come to anchor in the lower ro dstead." The translation says, "In the lower bay."

In the next line the French reads: "The dense fog depriving us of all view." The translation reads, "Concealing all objects from view." 1161

A little more than half way between 92 and 93 the line reads, "Which continued to follow us in the main channel which we were descending prudently." That is translated "cautiously."

In the next line the original reads, "The engine at 35 turns." The translation reads, "The engine making 35 revolutions per minute." Those words "per minute" are not in the original. 1162

In the next line the original reads, "We had perceived a steamer going up the south channel." The translation reads, "we saw a steamer coming up."

Two lines before the figures 93 the original should read, "a little before passing the meridian of Sandy Hook;" and the translation was made to read "shortly after passing the meridian of Sandy Hook." I find the word "after" has been changed to "before," as it should be.

In the second line after the figures 93, I find the original should read, "for we had made opposite Sandy Hook." That is translated, "because we had shown." That is not what the original says. 1163

In the 94th line the translation should be after the words, "blue, white and red," "then immediately after we burned a blue torch." That is translated, "a little while after we burned a blue light."

In the 7th line from the beginning of folio 93, "nevertheless the bearing of the steamer remaining perceptibly the same" is translated, as I claim, erroneously, "plainly." 1164

Continuing in the same line, "I invited the pilot to take care." This is translated incorrectly by the word "warned"—"warned the pilot to take care."

In the second line from the bottom of page 31 the original reads, "Seeing the distance between

1165 the two vessels diminish gradually, I recommended again to the pilot." This is incorrectly translated by the phrase, "Seeing the distance between the two steamers was rapidly decreasing I again cautioned the pilot." That is not what the original says.

In the second line from the top of page 32 the original states that the *Lisbonense*, of Liverpool, "was evidently continuing her course." The translation says, "plainly kept her course." That is
1166 not the word that is used. There are other words for those words that are used in the translation here.

In the same line, "without her bearing modifying itself." That is translated incorrectly, "without changing her bearing." The word "modifying" is used there.

Then in the same line the original states, "I did not hesitate to cause the engine to stop" The translation says, "I did not hesitate ordering the
1167 engines stopped."

The same phrase continues, "to force it astern at full speed at five o'clock 28." The translation incorrectly says, "backed her full speed at 28 minutes past 5 o'clock." There is no such word as "back" in the original.

The same phrase continues, "at the same time I indicated twice over my manoeuvre." The tense used in the translation is inexact. It says, "indicating."

1168 The phrase continues on, "by the three regulation blasts of the whistle." The word "regulation" is translated "customary."

The next line says, "It is to this decision we owe it." Those words "we owe it" are left out, and the translation says, "it is to this decision that we did not take part in a disaster."

The next line continues, "The headway of the *La*

Champagne slowing gradually." It is translated "decreasing." 1169

Further on, in the next line the words are used "but not completely since her taffrail struck our stem." It is translated by the words "her quarter struck our bows." The stem and bows of a ship I take to be two different parts of the forward part of a ship to a certain extent.

The original then states, "the shock was so feeble," and it is translated by "so very feeble." The word "very" is not in there. 1170

Then the phrase continued, "that the only eye witnesses were able to doubt that a collision had just taken place." In the translation the word "the" is left out, so that it reads "only eye witnesses could have suspected a collision had taken place?"

I understand it to mean that the only persons on board who were right there and looked at the thing were the ones referred to.

In the next line the original says, "our engineers themselves believed we had simply run against a buoy." The translation reads "thought," instead of "believed." 1171

Further on, the original states, "the verbal reports of the second captain and of the master carpenter who had ascertained." The translation as made reads, "the verbal reports of the second captain and master carpenter who stated."

Then they continue on in the same phrase, "that the damage was localized forward of the first water-tight bulkhead." The translation says, "the damage was localized to the forward part of the first water-tight bulkhead," which is incorrect. It does not say that the forward part of the water-tight bulkhead was damaged at all. 1172

Then the protest continues in the next phrase, "I inquired immediately for the *Lisbonense*," and

1173 the translation says, "I looked at once for the *Lisbonense*."

About nine lines further down the phrase reads, "he knew by the piece of my stem remaining in his taffrail that my forward part was very much damaged." The word used by the translation here is "quarter," and he uses the word "bow" instead of "stem."

Then he says, "This is why I deem that." The translator has used the word "think."

1174 In the same phrase further he says, "the captain and the pilot of the *Lisbonense* have been wanting to the most elementary duty of humanity." The translator has used the word "failed," which is not what the original says strictly.

Then again in the next phrase he says "the tug *Assistance* which had been continually convoying us." The translator has not translated that, but has said, "the tug *Assistance* which was still with us." He did not say anything about her "having
1175 continually convoyed" the *La Champagne*.

Later on he says that the *Lisbonense* had "gone directly to New York where he was made fast to his dock." It says here "she had made direct for New York and was fast at her dock." That is what I consider to be a rather careless transaction. I am following the transaction as closely as I think it ought to be in an important document of this kind.

I find on the 37th page the clause as translated by
1176 myself, "The collision has certainly been caused by the error of appreciation of the two pilots and through their lack of agreement." The words I object to in the translation are the use of the word "judgment," as the word in French is "appreciation."

33 Q. What is the translation given by the witness who testified to the translation? A. The word

"judgment." I claim that is more properly trans- 1177
lated by the English word "appreciation."

The next phrase as translated by myself should read, "Ours was persuaded that his colleague would modify the course." The translator has used the word "alter" instead of "modify," to which I object.

In the next line I translate the phrase as follows: "Not only because he had responded to our whistle." The translator has used the word "answered," which I do not consider to be the proper 1178
word.

In the next line I translate the original "in his capacity of pilot he ought to take into account." The translator has replaced the words "take into account" by the word "realized," which is not what is stated in the original.

Two lines further down I make the original read "prevented us from manœuvering to avoid her." The translator has used the improper word "hindered us." The original is "prevented." And 1179
instead of "avoid her" he has used the words "keep out of his way," which is not the original.

In the next phrase "He ought to understand that we could not execute the article 16." He has not translated that phrase as it is, but says "we were unable to follow" instead of "execute."

The same phrase goes on to say "of the rules of the road to the sea." He has translated that by the words "rules of the road at sea," which is not correct. 1180

Two lines further down the original should read, "for he was not ignorant that my vessel manœuvred with difficulty." The translator says, "for he could not be ignorant."

The next phrase reads, "He knew that our great draught of water did not permit us." The translator has used another tense and says, "would not permit."

1181 The original reads continuing in the same phrase, "he ought to take into account that we could not even stop." He has used the word "realized" instead of the words "take into account."

Tha same phrase continues further on, "under penalty of being thrown on the banks by the current of the ebb tide then in all its force." He has left out the words "ebb tide" altogether. The technical word used is "jusant" in the French.

In the next phrase the original should read
1182 "it is very probably under the impression of this conviction that my pilot continued his course." The word should be "probably" and not "probable." The use of the word "probable" makes a different sense of that phrase, as I consider it. As I consider it by the use of the word "probable" that what he wishes to bring out is that the pilot continued his course, whereas, what he wishes to say is he continued under this impression. I think it makes a difference in the sense. We both agree that he
1183 continued his course, but he don't say, as he has translated it, that he continued it under this impression which he wishes to bring out. That is the objection I make to that.

About three lines further down in the next phrase "As to the pilot of the Lisbonense, he should have perceived as well as we that a collision was imminent and as he had all liberty to manoeuver". The use of the words "all liberty" is translated "full liberty", which is not what the original
1184 says.

In the original further on it says as I have translated it, "as he was governing a vessel of small dimensions". The translation reads "had charge of" instead of "was governing".

Further on in the same phrase, "whose draught of water permitted him to pass over all the neighboring banks". That is translated "cross over". The word "cross" is not the word used.

Further on in the same phrase, "permitting him to stop without any danger." The translation says, "he could have stopped her with safety." Those are not the words used. 1185

In the commencement of the next phrase the translator starts abruptly, "this steamer did nothing to avoid the collision". It leaves out the word "now", "now this steamer did nothing."

The same phrase continues, "thus violating the prescriptions of the articles 18 and 23". He has left out the word "prescriptions" altogether, saying, "violating therefore articles No. 18 and 20". There is no mention made of "prescriptions". 1186

In the next phrase the original should read, "in consequence of the showing which precedes". The translation says "in consequence of the matters aforesaid". That is not a careful translation.

The original then says, "I protest as much in my name"; and the translator says, "I hereby protest both in my name".

Then about five or six lines further down the says, "against her captain and against his owners as soon as I shall be in a position." That is translated, "as soon as I am in a position." Further on the original should read, "to prosecute at law my suit for indemnity in consequence of the damage caused." The translation reads, "for the recovery of the damages sustained." Those are different words altogether. 1187

Two lines further on in the beginning of the next phrase the captain states, "After the collision I remained during a quarter of an hour upon the place of the occurrence holding myself up." The translator has made it read "Keeping my position." It don't say that he kept his position. It says he was holding himself up the best he could. 1188

"Then I manœuvered to return to New York." The translation is made to say, "I turned around." Perhaps he did, and perhaps he did not.

1189 At the commencement of the next paragraph, nine lines from the top of page 38, the original should read, "During the manoeuver *La Champagne* was swept by the current upon the buoy No. 5." The translation says was "thrown by." The technical word used is "drossee," which means "swept by."

The end of the same phrase reads, "which caught itself under our port afterbody." The words used in the translation are "under our port quarter."
1190 Technically, I think, the word is "body."

The commencement of the next phrase reads, "We labored during a long time without succeeding in disengaging this buoy." The translation is made to read, "we tried in vain," which is not strictly as was stated.

In the same phrase towards the end of it are the words "in order to prevent the current from dragging us on the banks." This is translated, "to prevent the current from carrying us on to the
1191 banks"; and that is not the word used.

Towards the end of the paragraph, the line after the figures 113 on the 38th page the original says, "I after that shaped my course for New York." This has been incorrectly translated "I proceeded at once." The words used are "after that"; it does not say "at once." The words in the original should be "I after that shaped my course for New York," and the translator says, "I proceeded at once to New York." I don't know whether it was
1192 at once or not.

The next phrase says, "the English packet *Etruria* was still anchored at the place where the fog had stopped each of us." The translator had gratuitously thrown in the "night before," which is not in the original.

The next phrase says, "at my request the captain of this vessel kindly consently to take charge of

our mails." The translator has it "was kind enough 1193
to consent to my transferring the mails to his vessel," and that is not the original.

Then the original says, "would have been delayed in New York for four days." The translation is made to read, "over four days."

In the next phrase the original should read "I arrived at the dock of the company without other incident." It is made to read by the translator, "without other accident." The word used is "incidents" and not "accidents." I believe that fills 1194
the list.

34 Q. Have you enumerated the total number of errors in that translation referred to? A. The errors and inaccuracies and careless translations I have made to be 73, if I am correct. Mr. Chubb found one that had been corrected, and that would leave 72.

35 Q. That is a correction merely in the final print? A. It seems to be.

36 Q. You don't know whether it was made in 1195
the original translation that was testified to? A. It was not made in the one shown to me. I saw the translation that was handed in, and in that it was not corrected.

37 Q. The translation that was sworn to by the witness? A. I don't know whether he swore to it or not. I was not there.

38 Q. You mean the original manuscript? A. Yes, that the Marshal told me had been handed him to print. 1196

By Mr. Chubb:

39 Q. Do you mean written or printed? A. I mean a type-written document.

By Mr. Jones:

40 Q. That had been handed to the Marshal? A. I understood him that was the translation made for

1197 the Marshal. I understood that was the translation made by the other side. I compared that translation with the printer's proof and found it to agree with it; that is, it agreed with this. (Indicating).

41 Q. I call your attention to the words "at par leur manque d'entente" in the 97th folio, and ask you to state what shades of meaning the word "d'entente" in French has, and whether or not it is capable of exact translation into English? A. I understand the use of the word here to be explained
1198 by the phrase that follows it. I think it is a word that requires explanation according to the circumstances of the case. I understood the party to go on and explain what he meant by it in the next phrase. That is my understanding of his use of it. It is a word that means "agreement," mutual understanding; it expresses the fact of their being united upon some matter or idea. It is capable of a great many shades.

42 Q. If I understand you correctly, the exact
1199 meaning of the expression cannot be accurately conveyed as it is used there, except as it is used in connection with the words and observations which follow? A. That is what I understand it. I think he has used the general word and intended to explain it by his remarks later.

43 Q. I ask you now if there is any such word as "judgment" used in that connection? A. No, there is not. I have never seen that word "appreciation" translated "judgment." I have never
1200 seen it defined as that word.

44 Q. What do you mean by saying you never saw it defined that way? A. I have never seen it in the dictionaries.

45 Q. So, if I understand you correctly, the phrase as translated by the translator, namely, "a collision has certainly been caused by the error of judgment of the two pilots" is erroneous, and that the

term used ought to be "error of appreciation of the 1201
two pilots"? A. I so consider it.

46 Q. Have you made a translation, an entire translation of the original of the paper we are speaking of now? A. I have.

47 Q. Will you produce it? A. That is it. (Hands paper to counsel).

(Paper handed to counsel is marked for identification, *La Champagne* Exhibit C, of this date, J. A. S).

Mr. Chubb: Let me have the exhibits. 1202

Mr. Jones: Counsel for the appellants asks for leave to see the exhibits, and counsel for *La Champagne* states that although not recognizing the right of counsel to call for them, he nevertheless hands them to him for his inspection.

MR. CHUBB: Counsel for appellants states that he did not ask for leave to examine the exhibits. He asks for the exhibits.

MR. JONES: The stenographer may modify my expression accordingly, and say that he asks to see 1203
the exhibits, and they are shown him.

MR. CHUBB: Counsel for appellants further objects to Exhibit A and Exhibit B for *La Champagne* of this date, upon the additional ground that the papers refer to depositions inscribed elsewhere by Pilot de Vere, and of Captain Parker commanding the tug *Assistance*, and that said depositions do not appear attached to the said exhibits or elsewhere in the record, and for want thereof the said exhibits are incomplete and incompetent. 1204

CROSS-EXAMINATION by Mr. Chubb:

48 x-Q. I take it Exhibit B has been copied by a typewriter from a manuscript translation? A. No; I dictated it to the type-writer.

49 x-Q. And the paper which you used in so dictating the translation was this identical paper

1205 Exhibit A? A. Yes. I have read it over since. I believe that is entirely right.

50 x-Q. Have you compared this original paper Exhibit A with the record from which it purports to be an extract? A. No.

51 x-Q. I see in the margin certain additions. Have you incorporated those additions in the body of the texts? A. Everything that is necessary except the mention of the approval of the putting of those words in the margin.

1206 52 x-Q. Then you have translated them as if they had been written in the body? A. I have.

53 x-Q. You have no knowledge as to when these marginal additions on Exhibit A were made? A. None whatever. I think they are quite unimportant, those marginal notes.

54 x-Q. When did you dictate this paper, Exhibit B? A. This morning.

55 x-Q. In your own office? A. No.

56 x-Q. Where? A. In the office of Mr. Jones.

1207 57 x-Q. Have you ever held any government or court appointment as interpreter? A. I have been appointed I suppose by officers of the court.

58 x-Q. In individual cases?

MR. JONES: What does counsel mean by "individual cases"? A. I am not attached to any court.

59 x-Q. And any pay you have received for your services has been from one or other of the parties to the suit? A. I cannot tell you about that. I don't know who furnished the money.

1208 60 x-Q. Or their attorneys? A. I have received —in the case of Mr. Elwell, I have acted as interpreter when Mr. Benedict called on me. I have been paid by Mr. Elwell.

61 x Q. You have not been paid from any government fund, that you know of? A. No. I think the bills were sent to Mr. Elwell, and he sent up checks for them.

62 x Q. You have been paid by counsel for the La Compagnie Generale for some of your services in this case? A. I think I have. I am pretty sure I have. 1209

63 x Q. How long have you lived in France? A. I lived in France about three years.

64 x Q. What is a blue torch? A. A blue torch is a torch that gives out a blue light when ignited, or is supposed to, if it functions properly, as I understand.

65 x Q. Do you know of any kind of blue torch except a blue light, except what is known among sailors as a blue light? A. Yes, I understand there could be a blue lantern. A light does not strictly mean a torch. A red light would not always mean a red torch; and a white light would not always by any means, mean a white torch. The word used technically is torch or light—I have forgotten which one is used now. 1210

66 x Q. Is it your understanding from the phrase used in the French protest, "une torche bleue" that a lantern was used? A. I don't think so, no. 1211

67 x Q. What is your understanding of what was used in such case? A. That they burned some sort of a signal that gave a blue light; what is technically known as torch.

68 x Q. What was known among sailors as a blue light? A. A blue light could perhaps mean a rocket thrown up. They throw up blue lights and red lights. I think that was something that was held in the hand and burned. 1212

69 x Q. Something pyrotechnic? A. Yes. I have seen them burning them on steamers. I remember coming into New York in the month of December and they burned this signal for a long time.

70 x Q. Something pyrotechnic? A. Yes. And they burned signals for the dock in Havre, and they

1213 answered back they could not let us in, and all that. We used torches, and in one case I remember, and in other they threw up rockets. They burned a signal for the pilot by fire held in the hand. I know I stood nearly under it, and wondered whether I was going to be burned from the sparks that fell out and dropped down.

71 x Q. What part of the ship do you understand to be meant by the French word "conronnement"? A. I understand that to be the stern, at the utmost
1214 end of the stern, where the "crown" is put on the end, with all sorts of fancy work.

72 x Q. Is that any part of the side of a vessel? A. I do not consider it so. The stern might be rounded off so as to come near it, but it is the extreme end of the vessel.

73 x Q. Part of the hull? A. It is part of the extreme end. It seems to me the extreme front of a vessel might be called the stem, I understand it to be. But the woodwork forming the extreme end,
1215 that is it, and might be over the rudder perhaps.

74 x Q. Would it include any part as you have used it below the uppermost deck of the vessel? A. Generally speaking I think it would be the extreme after part of the ship.

75 x Q. Including part of the deck? A. I should say rather the hull of the vessel, referring to that more particularly than to the deck of the vessel. The deck of the vessel there I think would come under "gail-lard" d'arrière.

1216 76 x Q. Did you look in the dictionary to see what equivalents were given for coronnement?

A. I have. I have a number of works on technical phrases that I have consulted, and do consult. I frequently read them over in the evening for amusement.

77 x Q. My question is, did you look in the dictionary to ascertain what meanings were given to this word coronnement? A. I did.

78 x Q. And you found taffrail under it? 1217

A. I did.

79 x Q. Was it the only meaning that was given?

A. I don't think there were several meanings. There was not a meaning put down as "quarter."

80 x Q. Was there a meaning given as "counter?"

A. The counter is not there. Counter is more like the quarter; under the counter is under where she begins to turn in, and the stern runs down to meet the hull. They open ships under the counter; they don't open them on the coronnement. 1218

81 x Q. From the protest of the *Lisbonense* do you take it that the captain means to say where his vessel struck her?

A. As I understand they struck the taffrail that runs around. I don't think he states the distance.

82 x Q. If you don't know, why say so?

A. I don't remember now. It seems to me I translated that. I think that is where it was struck. I don't think he says how far the wound extended down or the damage. I understand the taffrail to 1219 be the light rail, technically speaking.

83 x Q. Will you kindly translate the first two lines of the first paragraph on page 33?

A. "The collision has certainly been caused by the error of appreciation of the two pilots and by their want of agreement."

84 x Q. "Appreciation" of what, do you mean? A. I am not the one that is to explain that. As I understand the man says lack of appreciation of something, and it is for him to explain what it was. 1220

85 x Q. The French does not convey to you a clear idea of what the man who wrote it meant to say? A. Not that phrase alone. I consider what follows explains his idea; as if the words were added in "that is to say," and then goes on.

86 x Q. That is to say what? "Ours was persuaded his colleague" would do so and so. That is my understanding of it.

1221 87 x Q. It is not unknown to you from your own experience that different individuals called competent may not agree on a translation of a particular passage in French or other languages, is it? A. I have never had any objections made to any translation I have made. I have not followed other interpreters, and therefore I have never seen—never had anything to do with any difference of opinion of that sort. I don't know positively that that is the fact.

1222 88 x Q. Then your answer to my question is "no"? A. My experience has not been such.

(Question 87 repeated)? A. I don't know. I could not answer that I did know, but will say I have heard of differences, but I don't know of any. I have heard of other translators being very unsatisfactory in their way of rendering interpretations, &c. I have seen translations incorrectly made, but this is the first case that I have ever been brought face to face with a matter of this kind.

1223 89 x Q. Do you remember being corrected in your translation of testimony given in the District Court by one of the gentlemen present in the room, apparently, from his actions, French? A. I remember in some case that Captain Boyer asked me if I would not use another form of question, as he was under the impression that the witness had not understood my question. I asked the witness whether he had understood my question, and told him what the Captain had said, and he said he understood me
1224 perfectly, that it was not necessary to change the form of the question at all. That is the only case I remember.

90 x Q. Do you recollect translating a question and using the word in French "assistance" and it being objected to by somebody that the word "seccour" was a better translation? A. I think his objection was illfounded and shown to be.

91 x Q. You remember the occurrence? A. I have an indistinct recollection. I think that perhaps somebody, I could not say who, made it. There was a great deal of difference. When you are in distress you shout out "all seccour," but "assistance", is another thing; it is brought without your shouting for it. I remember that, and my recollection is I was entirely right in the word that I used. 1225

92 x Q. Do you remember a similar occurrence with reference to your use of the word "feux" in French? A. I don't remember that. I will say this, that I have had from time to time objections made to words that I have used, and my recollection is that in every case the other party has been wrong. I do not say that to flatter myself, but as a matter of statistics. I presume I shall inadvertently make a mistake sometime or other, but it shall not be because I am not careful. I rather suspect that Mr. Phillips had not been told that very careful and technical work was required here. I suppose he was asked to give a sort of hasty run over what it was, and presume he himself would have made some corrections if he had been called upon to do it. I don't believe he sat down to go over it carefully as I did and make an exact translation; in fact, I think he will recognize the correctness of some of the objections I have made. 1226 1227

RE-DIRECT EXAMINATION BY MR. JONES:

93 Re-D. Q. I believe there has been some reference made on your cross examination to Mr. Benedict. What Mr. Benedict do you refer to? A. Mr. R. D. Benedict. 1228

94 Re-D. Q. You have acted as interpreter for him, or as interpreter for a side represented by him in cases? A. I was called on by him, and I believe he asked the other parties whether any objection was made to me, and they said no. I have been

1229 called by him in a great many cases. In fact, I guess, in nearly all the cases of ships on the Fabre Line, cases not only of collision, but cases of suits for damages, falling down hatches, and all sorts of cases.

95 Re-D. Q. Has your competency as an interpreter ever been impugned or questioned before this case? A. No. I understood it was claimed I had expressed a bias or something, in this case. I believe it never has been. I think Mr. Chubb told me
1230 that he thought I was rather full of one side of the case.

96 Re-D. Q. What I mean to ask you is whether or not your qualifications and capacity as an interpreter have ever been called into question before this case? A. I don't remember it. I don't recollect any.

It is hereby stipulated that the appellee's time within which to take depositions, under
1231 the order heretofore entered in this case is extended to and including Monday, the 8th day of February, 1892.

Adjourned to Monday, February 8, 1892, at 3 P. M.

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SINGLEHURST

vs.

LA COMPAGNIE GÉNÉRALE TRANSATLANTIQUE.

Hearing resumed February 8, 1892.

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APPEARANCES.

R. D. BENEDICT, Esq , and
SIDNEY CHUBB, Esq., for Appellants.
E. K. JONES, Esq., for Appellees.

MR. JONES: I desire the stenographer to note that since the last session I have, under the direction of the Commissioner, caused *La Champagne* Exhibit A for Identification, February 4, 1892, to be presented to the French Consulate at this port, and certified under his hand and seal.

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THE COMMISSIONER: I sent Mr. Smith, a messenger in my office, down with the paper, and it was in his presence all the time, and brought back to me, and I handed it to the stenographer. Mr. Jones, counsel for appellees, requested me to send the exhibit down for that purpose. I gave no directions about having the paper certified.

MR. JONES: Counsel for *La Champagne* does not claim that the Commissioner gave any directions other than to the messenger to take the paper to the French Consulate in pursuance of counsel's request.

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Counsel for *La Champagne* offers in evidence, provisionally and conditionally however in the event that the depositions and exhibits heretofore taken and offered in evidence by the appellant shall be finally admitted in evidence on the hearing

1237 of this appeal, exhibits marked *La Champagne* Exhibit A for Identification, *La Champagne* Exhibit B for Identification and *La Champagne* Exhibit C for Identification, all of February 4th, 1892.

Mr. Benedict: Counsel for appellants objects to the exhibits marked for identification *La Champagne* Exhibit A and *La Champagne* Exhibit B for identification, of February 4th, 1892, on the following grounds:

1st.—That it appears to be a copy, and no
1238 reason is shown for not offering the original.

2nd —That it is not sufficiently proved to be a correct copy.

3rd.—That the paper as offered is incompetent as evidence.

4th.—That it appears to be, if it is a copy, only a copy of part of an original document, and
1239 not the whole.

5th.—That on the last hearing before the Commissioner the counsel had presented the original of which this purports to be a copy, and exhibited the same to counsel for appellants; and the same was marked by the initials of the stenographer

The Commissioner: At this point Mr. Benedict is interrupted by Mr. Jones, and the Commissioner says that Mr. Benedict has a right to put down such objections as he is advised. The Commis-
1240 sioner says that Mr. Benedict should have the right to finish his objection, and then counsel for the other side can answer it in any way as he sees fit.

Mr. Benedict: (Continuing.) And that the same was thereafter withdrawn by the counsel for the appellees, and that after such production and marking and withdrawal of the original the counsel for

the appellees is not authorized to offer in evidence 1241
a copy thereof.

6th. That the paper now offered shows upon its face that the statement purporting to be made by Captain Boyer was made after having heard the reading of certain other depositions, which other depositions are not produced nor their absence accounted for, the said depositions being the depositions of Pilot de Vere and of Captain Parker, of the *Assistance*. 1242

And Mr. Benedict adds that not having been personally present at the last hearing, and having derived his knowledge of the facts simply from an examination of the stenographer's minutes, if Mr. Jones will point out to him any error in any fact which he has stated by reference to those minutes it will give him great pleasure to correct the same.

Mr. Jones: Mr. Jones says that he does not attempt to correct the errors of more than one counsel in this case. Mr. Benedict, do you desire the 1243
production of the depositions of Pilot de Vere and of Captain Parker, referred to in Captain Boyer's extended protest?

Mr. Benedict: If this paper is to be offered in evidence, most certainly. I desire if this paper is in evidence the production of the whole of the original record.

Mr. Jones: If counsel qualifies his statement in that way I shall be unable to comply with it, because the depositions of Pilot de Vere and Captain 1244
Parker are not a part of this record.

Mr. Benedict: They are referred to in the paper you have offered to-day and therefore must be a part of it.

Mr. Jones: The paper speaks for itself. Counsel for *La Champagne* objects to the statement made in the fifth objection of counsel on the other

1245 side to the admission of the document to which he refers, upon the ground that no such facts appear in this record, and such objection is therefore impertinent.

Testimony on behalf of La Compagnie Generale Transatlantique closed.

Mr. Benedict: The stenographer may note a motion on our part to strike out the testimony offered to-day, for which we will give a written notice to
1246 Mr. Jones for the next motion day.

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Note: **Exhibit A** referred to in the foregoing testimony is the same as the printed matter beginning at the word "*Cejour*" on page 339, and ending at the words "*V. Paul d' Abzac*" on page 347 of this record.

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La Champagne Ex. B, for identification February 4, 1892, J. A. S., U. S. Com'r.

CONSULAT-GENERAL OF FRANCE:
New York.

Extract from the Register of Records of Navigation of the Chancellor's Office of Consulat-General of France in New York.

This day, 12th of December, one thousand eight hundred and ninety, at noon, before us, Viscount 1250
Paul d'Abzac, Consul-General of France, appeared Mr. Jean Laurent Boyer, Chevalier of the Legion of Honor, Lieutenant retired, commanding the Packet of La Compagnie Generale Transatlantique *La Champagne*, who having heard read the depositions inscribed elsewhere of Pilot de Vere, and of Captain Parker, commanding the tug boat *Assistance*, declares that: In presence of the affirmation of Pilot de Vere, he cannot be sure that the first blast of the whistle was given by *La Champagne;* 1251
it is possible that occupied in following the pyrotechnical signals he did not hear the first blast of the whistle given by the *Lisbonense*. The declaration made in the sea report by the captain was sincere and in good faith, but it is possible that it was not absolutely exact, the captain having possibly committed an involuntary error, and it is impossible for him to say if the affirmation of the pilot is more or less exact than his own. The sea report is perhaps erroneous further on, when it 1252
states that the buoy B No. 5 was displaced by *La Champagne*. The information that the captain has taken upon this subject from the competent American service is not yet absolutely in proof of this. Therefore, the captain declares that while awaiting later information, there is doubt as to the number of the buoy displaced by *La Champagne*,

1253 and that it could be the No. 3 and not the No. 5. Signed L. Boyer. At the same instant presented themselves 1. Mr. Blanqui, Nicholas, shipmaster, first lieutenant of *La Champagne*, to whom we have proposed the following questions: 1. Which of these two steamers, *La Champagne* and *Lisbonense*, first gave the signal of the course it was following? A. Being in my room a few minutes before the collision I heard the blast of the whistle of a steamer; it was not that of *La Champagne*. I
1254 went out of my room at once, and then I heard the blast of the whistle of *La Champagne*. 2. What is the matter of the buoy upon which *La Champagne* was thrown? A. I did not see the number of the buoy; it was the second buoy that we passed. In testimony of which he has signed with us, Consul-General, signed V. Paul d'Abzac, L. S. Signed N. Blanqui. 2. Mr. Blanc, shipmaster, second lieutenant of *La Champagne*, to whom we have proposed the
1255 following questions: 1. Which of these two steamers, *La Champagne* and the *Lisbonense*, first gave the signal of the course it was following? A. I communicated the order to the man at the wheel to give a blast of the whistle. I heard a blast of the whistle of the *Lisbonense*, but I cannot certify if it was before or after the blast of the whistle of *La Champagne*. 2. What is the number of the buoy upon which *La Champagne* was thrown? A. I did not see the number of the buoy, but everything leads to be-
1256 lieve that it was buoy No. 3 from the manœuvre which was made to avoid it. In testimony of which he has signed with us, Con ul General, signed V. Paul d'Abzac, signed P. Blanc, L. S. 3. Joseph Bocot, shipmaster, third lieutenant of *La Champagne*, to whom we have proposed the following questions: 1. Which of these two steamers *La Champagne* and the *Lisbonense* first gave

the signal of the course it was following? A. I 1257
heard a blast of the whistle at the moment when we were burning a green light to call the pilot. This was not the whistle of *La Champagne*. There were at this moment at least two steamers in sight. *La Champagne* at once responded by a blast of the whistle. 2. What is the number of the buoy upon which *La Champagne* was thrown? A. I was not able to read the inscription on the buoy. In testimony of which he has signed with us, Consul General, the Consul General, L. S. Signed V. Paul 1258
d'Abzac, signed J. Becot. 4. The person named Joseph Marie Rouxel quartermaster of the first class, boatswain of *La Champagne*, to whom we have proposed the following questions: 1. Which of these two steamers *La Champagne* and the *Lisbonense* first gave the signal of the course she was following? A. I only heard three blasts of the whistle given by *La Champagne* at two different repetitions. 2. What is the number of the buoy upon which *La Champagne* was thrown? A. I was 1259
not able to read the inscription on the buoy. In testimony of which he has signed with us Consul General, the Consul General, L. S. V. Paul d'Abzac, signed Rouxel. 5. The person named Michel Marie Francois seaman of the first class, topman of the first class, to whom we have proposed the following questions: 1. Which of these two steamers *La Champagne* and the *Lisbonense* first gave the signal of the course it was following? A. I heard the blast of the whistle given by *La Champagne*. 1260
I did not hear the whistle of the *Lisbonense*. I am the one who signaled the *Lisbonense*. 2. What is the number of the buoy upon which *La Champagne* was thrown? A. I was in thewhaleboat, and aided in disentangling the buoy. I did not see its number. In testimony of which he has signed with us, Consul General, the Consul General, L. S. signed

1261 V. Paul d'Abzac; signed Michel. 6. The person named Pierre Marie Miximi, seaman of the first class, topman of the first class, to whom we have proposed the following questions: 1. Which of these two steamers *La Champagne* and the *Lisbonense* first gave the signal of the course it was following? A. When the *Lisbonense* was signalled I heard three blasts of the whistle of *La Champagne*. I did not hear the whistle of the *Lisbonense*. 2. What is the number of the buoy upon which *La*
1262 *Champagne* was thrown? A. I did not see the number of the buoy. In testimony of which he has signed with us, Consul General, (at the moment of signing the party named Miximi declared that he did not know how to sign and affixed his cross,) the Consul General, signed V. Paul d'Abzac. (Here follows a cross.) 7. The person named Jacques Marie Kergal, quartermaster of the second class, to whom we have proposed the following questions:
1263 1. Which of these two steamers, *La Champagne* and the *Lisbonense*, first gave the signal of the course it was following? A. At the moment when I took my post of lookout at the cathead, I heard three blasts of the whistle of *La Champagne*. I did not hear the whistle of the *Lisbonense*. 2. What is the number of the buoy upon which *La Champagne* was thrown? A. I was in the whaleboat and assisted in disentangling the buoy; I thought I saw upon this buoy the number 5. In
126[illegible] testimony of which he has signed with us, Consul General (here follows the seal) signed V. Paul d'Abzac, signed Kergal. 8. Mr. Edouard Joseph Dupont, shipmaster, second Captain of *La Champagne*, to we have proposed the following questions: 1. Which of these two steamers *La Champagne* and the *Lisbonense* first gave the signal of the course it was following? A. I heard a blast of

the whistle of *La Champagne*. I equally heard a 1265
blast of the whistle of the *Lisbonense*, but I cannot certify which of the two steamers whistled first. 2. What is the number of the buoy upon which *La Champagne* was thrown? A. I did not see the buoy, my post being forward. In testimony of which he has signed with us, Consul General, the Consul General, L. S., signed V. Paul d'Abzac, signed E. Dupont. 9. Francois Le Gonidec, registered provisionally, to whom we have proposed the following questions: 1. Which of these two 1266
steamers *La Champagne* and the *Lisbonense* first gave the ignal of the course it was following? A. I heard three blasts of the whistle of *La Champagne*. I did not hear the whistle of the *Lisbonense*. 2. What is the number of the buoy upon which *La Champagne* was thrown? A. I did not see the number of the buoy. In testimony of which he has signed with us, Consul General, L. S., the Consul General, signed V. Paul d'Abzac, signed Le Gonidec. 10. The person named Francois Marie Olivier Leu- 1267
duger, seaman of the first-class, topman of the first-class, to whom we have proposed the following questions: 1. Which of these two steamers *La Champagne* and the *Lisbonense* first gave the signal of the course it was following? A. I was at the helm, I heard three blasts of the whistle of *La Champagne* repeated two different times. I did not hear the whistle of the *Lisbonense*. 2. What is the number of the buoy upon which *La Champagne* was thrown? A. I was at the helm. I saw by the 1268
port and by the door a buoy bearing the number 3. In testimony of which he has signed with us, Consul General, the Consul General, V. Paul d'Abzac, signed Leuduger. 11. The person named Francois Marie Le Gouzec, seaman of the second-class, topman of the second-class, to whom we have proposed the following questions: 1. Which of these two

steamers *La Champagne* and the *Lisbonense* first gave the signal of the course it was following? A. I was on service at the whistle. An instant after the *Lisbonense* was signaled I received the order to give three blasts of the whistle at two different repetitions. I do not remember to have given an isolated blast of the whistle before that. 2. What is the number of the buoy upon which *La Champagne* was thrown? A. I was upon the bridge, I was not able to see the number of the buoy. In testimony of which he has signed with us, Consul General, L. S. the Consul General Signed V. Paul d'Abzac, signed F. Le Gouzec. 12. The person named Joseph Marie Jean Francois Briand, seaman of the first class, topman of the first class, to whom we have proposed the following questions: 1. Which of these two steamers *La Champagne* and the *Lisbonense* first gave the signal of the course it was following? A. I heard three blasts of the whistle of the *La Champagne* I did not hear the whistle of the *Lisbonense* 2. What is the number of the buoy upon which *La Champagne* was thrown? A. I did not see the number of the buoy. In testimony of which he has signed with us, Consul General, L. S. the Consul General, signed V. Paul d'Abzac, signed Briand. 13. The person named Francois Marie Gauthier, seaman of the first class and topman to whom we have proposed the following questions: 1. Which of these two steamers *La Champagne* and the *Lisbonense* first gave the signal of the course it was following? A. After the *Lisbonense* was signalled, I heard the blast of the whistle given by *La Champagne.* A moment after the *La Champagne* gave three blasts of the whistle, I did not hear the whistle of the *Lisbonense.* 2. What is the number of the buoy upon which *La Champagne* was thrown? A. I was on the bridge, and I was not able to see the number

of the buoy. In testimony of which he has signed 1273
with us, Consul General, L. S. the Consul General,
signed V. Paul d'Abzac, signed Gauthier. We have
given record to Lieutenant Boyer, commanding the
La Champagne of the above registered declarations
to serve him and to have value as may con-
cern, and we, the Viscount Paul d'Abzac,
Consul General, have signed the present and have
thereto affixed the seal of the Consulat General the
day, month and year as above. L. S. Consul Gen-
eral, signed V. Paul d'Abzac. This day, the 13th 1274
of December, one thousand eight hundred and
ninety, the latter below has been transcribed follow-
ing the above interrogatory. Tompkinsville, Dec.
12th, La Compagnie Generale Transatlantique. Re-
plying to yours per bearer I beg to say that buoy B.
3 being out of place was put back on the 10th in-
stant. Buoy B. 5 was permanently removed eight
months ago. Buoy 6 on the same date had disap-
peared altogether, and a new buoy was put in its
place. Signed Henry Picking, Captain U. S. N. 1275
Inspector U. S. General Light House Department.
Extract certified correct. New York, 21st of Nov.,
1891.

Le Chancelier,

L. S. J. DUPAS.

1276

1277

La Champagne Ex. C., for identification February 4, 1892. J. A. S., U. S. Com.

Copy of Protest of the Packet *La Champagne.*

I left the deck at New York, the 6th December, 1890, at 24 minutes passed noon, having on board the mails, a full cargo of general merchandise and 454 passengers. The weather being foggy I retained the tug *Assistance* to make my course clear. The fog
1278 became thicker and thicker as we went down the river, and I was obliged to come to anchor in the lower roadstead at 2 o'clock 20 minutes, the dense fog depriving us of all view. The atmosphere cleared up in the night; at 4 o'clock we distinguished the course light. I got under weigh still escorted by the *Assistance* which aided us to turn around the *S. W. Spit*, and which continued to follow us in the main channel which we were descending prudently, the engine at 35
1279 turns imparting a speed of about 10 knots and a half to the packet. A little before passing the meridian of Sandy Hook we had perceived a steamer going up the South channel and showing us her red light. This steamer could not but have perceived us, for we had made opposite Sandy Hook, the night signal of the company, consisting of three bengal lights, blue, white, red, then immediately after, we burned a blue torch to call the boat of the Pilot. Nevertheless, the bearing of the steamer re-
1280 maining perceptibly the same, I invited the Pilot to take care, and he ordered the giving of a blast of the whistle to which the other steamer responded. Seeing the distance between the two vessels diminish gradually, I recommended again to the Pilot to be prudent, and as the steamer (which I knew later to be the *Lisbonense* of Liverpool) was evidently continuing her course without her

bearing modifying itself, I did not hesitate to cause 1281
the engine to stop (5 o'clock 27 minutes) and to force it astern at full speed at 5 o'clock 28 as Article 18 of the International rules orders. At the same time I indicated twice over my manœuvre by the three regulation blasts of the whistle. It is to this decision we owe it not to have assisted at a disaster. The headway of *La Champagne* slowing gradually, the *Lisbonense* was able to succeed in passing before us, but not completely since her taffrail struck our stem. The shock was so feeble that the only eye witnesses 1282
were able to doubt that a collision had just taken place. Our engineers themselves believed that we had simply run against a buoy. I understood that our damages were not of a nature to compromise the safety of my vessel, and as this impression was quickly corroborated by the verbal reports of the 2d Captain and of the Master carpenter who had ascertained that the damage was localized forward of the first water tight bulkhead, I inquired immediately for the *Lisbonense*, but although scarcely a few 1283
minutes had elapsed since the moment of the collision, that steamer had rapidly disappeared by the Swash channel in which my draft of water did not permit me to follow him. He did not at all preoccupy himself with the numerous passengers which he ought to have supposed to be aboard of my vessel. He knew nevertheless by my signal that he had collided with the French packet, and he knew by the piece of my stem remaining in his taffrail that my forward part was very much damaged. This is why 1284
I deem that in this circumstance the Captain and the Pilot of the *Lisbonense* have been wanting to the most elementary duty of humanity. The tug *Assistance* which had been continually convoying us, had no more seen what had become of the *Lisbonense*. I learned later that he had gone directly to New York where he was made fast to his dock

1285 The collision has certainly been caused by the error of appreciation of the two pilots, and through their lack of agreement. Ours was persuaded that his colleague would modify the course or the speed of the *Lisbonense*, not only because he had responded to our whistle, but also because in his capacity of pilot he ought to take into account that the special conditions in which *La Champagne* found herself placed, prevented us from manœuvering to avoid her. He ought to understand that we could not execute the
1286 Article 16 of the rules of the road to the sea, and that we found ourselves in the special circumstances aimed at by the Article 23 of those same rules, for he was not ignorant that my vessel manœuvered with difficulty because of her great length. He knew that our great draft of water did not permit us to go out of the channel, and he ought to take into account that we could not even stop under penalty of being thrown on the banks by the current of the ebb-tide, then in all its force. It is very probable,
1287 under the impression of this conviction, that my pilot continued his course. As to the pilot of the *Lisbonense*, he should have perceived as well as we, that a collision was imminent, and as he had all liberty to manœuver, as he was governing a vessel of small dimensions and of easy manœuver whose draft of water permitted him to pass over all the neighboring banks. As he had the current from ahead, permitting him to stop without any danger, nothing can justify him in not having made
1288 any manœuvre. Now this steamer did nothing in order to avoid the collision, thus violating the prescriptions of the Articles 18 and 23 of the International rules.

In consequence of the showing which precedes, I declare that I protest as much in my name as in the name of the Compagnie Generale Transatlantique against the English steamer *Lisbonense* of

Liverpool, who by her imprudence has occasioned 1289
the collision related above, reserving to myself to serve the present protestation against her captain and against his owners as soon as I shall be in a position to do it, and to prosecute at law my suit for indemnity in consequence of the damage caused.

After the collision I remained during a quarter of an hour upon the place of the occurrence, holding myself up as best I could with the help of the *Assistance*, then I manœuvred to return to New York, my vessel not being in condition to navigate in 1290
safety. During the manœuvre *La Champagne* was swept by the current upon the buoy B No. 5, which caught itself under our port afterbody. We labored during a long time without succeeding in disengaging this buoy, and I had to anchor with one anchor in order to prevent the current from dragging us on the banks. Then with the aid of another tug named *Hudson* we succeeded in disentangling ourselves from the buoy. I after that shaped my course for New York at slow speed. The English packet 1291
Etruria was still anchored at the place where the fog had stopped each of us. At my request the captain of this vessel kindly consented to take charge of our mails, which, without his kindness, would have been delayed in New York for four days. I arrived at the dock of the Company without other incident.

During the course of the events which precede I have had only to be satisfied with my officers, as well as my crew. All have given proof of obedience, of 1292
coolness, and of devotedness. I close here my protest, certified sincere and in good faith to serve as may be right, reserving to myself to extend later if need be.

New York, the 8 December, 1890.

A true copy,

THE CAPTAIN.

1293 UNITED STATES CIRCUIT COURT OF APPEALS.

SECOND CIRCUIT.

ROBERT SINGLEHURST, *et al.*,
Cross-Libellants and Appellants,

VS.

1294 LA COMPAGNIE GENERALE TRANSATLANTIQUE,
Libellants and Respondents.

Before John A. Shields, U. S. Commissioner.

NEW YORK, February 10, 1892.

APPEARANCES:

1295 SIDNEY CHUBB, Proctor for Appellants;
E. K. JONES, Proctor for Appellee.

Testimony taken under and in pursuance of a notice to take the testimony of FREDERICK KOPF as a witness on behalf of the Compagnie Generale Transatlantique before John A. Shields, Esq., U. S. Commissioner, at his office in the Post Office Building, &c.

1296 FREDERICK KOPF, being duly sworn, testifies as follows:

Mr. Chubb: I object to proceeding with the examination of the witness named in the notice of examination, for the reasons, first, that counsel for the Appellee announced at the end of the last session that the Appellee's new proofs were closed, and it

so appears on the record; and, second, notice of motion to suppress exhibits produced by the Appellee having been given and served, and the motion being still pending and undetermined, the taking of further evidence by the same party is not permissible. 1297

By Mr. Jones:

1 Q. You are the managing clerk for the proctors for the Compagnie Generale Transatlantique? A. Yes, sir. 1298

2 Q. Will you state whether or not any correspondence took place between your office and Mr. Benedict since the last hearing in this case? A. Yes, sir.

Mr. Chubb: Objected to.

3 Q. Will you produce it?

Mr. Chubb: Same objection.

A. I produce the letter book of the firm of Messrs. Jones & Govin, in which there is a letter dated February 9th, 1892, on page 239. 1299

Mr. Chubb: I wish to object to it on the ground that a copy of the letter book is not in evidence for any purpose.

The Witness: (Continuing) in which there is a letter of February 9th to Mr. R. D. Benedict.

4 Q. State whether or not that is a press copy of the original letter? A. That is; yes, sir.

5 Q. Do you know whether that letter was sent to Mr. Benedict or not? A. It was; yes, sir; by the young man in the office; sent under my direction. 1300

Mr. Chubb: Objected to on the ground that it purports to give a copy of a letter, no notice to produce the original of which appears to have been given, and motion is made to strike the testimony out on that ground.

Mr. Jones: As counsel for the other side is present, I give notice to produce the original of that letter now.

1301 Mr. Chubb: Counsel for the appellant states that the letter was not addressed to him, and that it is not in the room to the best of his knowledge.

Mr. Jones: I will have that marked, Mr. Commissioner

The press copy of letter referred to is marked J. A. S., Com'r, of this date, and is as follows:

"JONES & GOVIN.

1302 ——— 45 Cedar Street.

Edward K. Jones.
Raphael R. Govin.

NEW YORK, Feb. 9th, 1892.

Singlehurst *et al.*, Appellants,
vs.
La Compagnie Generale Transatlantique.

R. D. BENEDICT, Esq.,
68 Wall St, City.

DEAR SIR:

1303 I have received certified copies of the depositions of Pilot de Vere and Captain Parker referred to in the extended protest of Captain Boyer.

I again ask you whether you call for the production of these papers? If you do, I will produce them before the Commissioner at any time convenient to you and have them marked in evidence.

Yours, truly,
EDWARD K. JONES.

(Copy)."

1304 6 Q. State whether or not any answer was received to that letter? A. Yes, sir; there was.

7 Q. Please produce that?

The witness produces the letter.

Mr. Jones: I offer that in evidence.

The letter referred to is marked "J. A. S., Com'r," of this date, and is as follows: 1305

"LAW OFFICES
of
BENEDICT & BENEDICT,
Robert D. Benedict. 61 Wall Street.
Edward D. Benedict.
William D. Jones.

NEW YORK, Feb. 9th, 1892.

EDWARD K. JONES, ESQ. 1306

DEAR SIR:

Your note is received. Our call for papers in the case of Singlehurst *et al. vs.* La Comp. G. T. is on the record of yesterday's proceedings.

But, if you will obtain a certified copy of the whole of the documents, part of which you have offered, we will consent to their going in evidence.

Yours truly,

(Copy.) ROBERT D. BENEDICT."

8 Q. Was any reply sent to that letter? 1307

A. Yes, sir, there was; on the same day a short time after its receipt.

Mr. Chubb: Objection on behalf of the appellants is made to the question, and the same motion to strike out the answer.

Mr. Jones: I also call upon counsel, the objection being made, that the original is not produced, to produce the original.

Mr. Chubb: The same answer is made to that as to the preceding call. 1308

9 Q. Is that the letter press copy of the reply?

A. Yes, sir.

10 Q. Which you referred to just a moment ago?

A. It appears on page 242 of the same letter book.

Mr. Jones: I offer that in evidence.

The letter press copy referred to is marked "J. A. S., Com'r," of this date, and is as follows:

1309 "JONES & GOVIN, 45 Cedar Street.
EDWARD K. JONES,
RAPHAEL R. GOVIN.

NEW YORK, Feb. 9th, 1892.

ROBERT D. BENEDICT, ESQ.,
68 Wall St., New York.

DEAR SIR:—

I have your favor in reply to mine of this morning, and in answer I beg to say that I have not asked for your consent to the introduction of the
1310 whole or any part of the documents which have been the subject of new evidence on appeal in this case.

"I have asked you whether you call for certain depositions. A call involves legal consequences which you seem to wish to avoid. I asked you yesterday whether you called for the papers in question, and you answered in the affirmative, but with the provision that they must be 'part of the record.' As they are no part of the record of Captain
1311 Boyer's extended protest, of course they are not included in your call for them as thus qualified.

"I trust I have made myself plain. If you still desire to call for the depositions of Pilot De Vere and Captain Parker, they will be produced and put in evidence, provided that you accept this offer without further delay.

"Yours truly,

(Copy) "EDWARD K. JONES."

1312 Mr. Jones: Counsel for the Compagnie Generale Transatlantique hereby gives notice that in the event of the admission of the Appellee's new proofs in this cause, a motion will be made before the Court for the introduction as part of the evidence in behalf of the respondents of the correspondence testified to by this witness as above set forth.

1313

U. S. CIRCUIT COURT OF APPEALS,

SECOND CIRCUIT.

SINGLEHURST, *et al.*

vs.

LA COMPAGNIE GÉNÉRALE TRANSATLANTIQUE.

1314

It is hereby stipulated that the certified copy of the record hereto annexed may be translated by George H. Stetson, Esq., and should the Court decide that the original, or any part thereof, is proper evidence on appeal, and overrule any objection made to its admissibility or competency as such evidence, then the same and the translation thereof may be referred to and used by either party with 1315
the same force and effect as if the original were present before the Court.

It is further stipulated that the said copy of record and translation need not be printed until all questions concerning its admissibility and competency are determined.

Dated New York, April 27th, 1892.

EDWARD K. JONES,
Counsel for La Compagnie Générale
Transatlantique. 1316

SIDNEY CHUBB,
Proctor for Singlehurst *et al.*,
Appellants.

1317 Page 76. Cejour d'hui neuf décembre mil huit cent quatre-vingt-dix, à deux heures de l'après-midi,

Par devant nous, vicomte Paul d'Abzac, Consul Général de France à New York, a comparu Jean Laurent Boyer, lieutenant de vaisseau en retraite, commandant le paquebot de la Compagnie Générale Transatlantique "La Champagne,"

Lequel nous a déclaré sous serment ce qui suit :

J'ai quitté le dock de New York le 6 novembre 1890, à midi 24 minutes, ayant à bord les dépêches,
1318 un plein chargement de marchandises diverses et 454 passagers. Le temps étant brumeux, j'ai conservé le remorqueur "Assistance" pour éclairer ma route ; la brume est devenue de plus en plus épaisse à mesure que nous descendions la rivière et j'ai dû jeter l'ancre dans la rade inférieure à 2 h. 20 minutes, la brume intense nous ôtant toute vue.

L'atmosphère s'est éclaircie dans la nuit ; nous distinguions à 4 heures les feux de direction; j'ai appareillé, toujours escorté par l' "Assistance," qui
1319 nous a aidés à contourner le "S. W. Spit" et qui a continué de nous suivre dans le Main Channel, que nous descendions prudemment, la machine à 35 tours, imprimant au paquebot une vitesse d'environ dix nœuds et demi. Un peu avant de passer le méridien de Sandy Hook, nous avions aperçu un vapeur remontant le South Channel et nous montrant son feu rouge. Ce vapeur ne pouvait ne nous avoir pas aperçu car nous avions fait devant Sandy Hook le signal de nuit de la Compagnie, consistant en
1320 trois feux de bengale: blue, blanc, rouge, puis aussitôt après nous avions brélé une torche bleue pour appeler le canot du pilote.

Pourtant, le relèvement du vapeur restant sensiblement le même, j'invitai le pilote à prendre garde, et il ordonna de donner un coup de sifflet auquel l'autre vapeur répondit. Voyant la distance entre les deux navires diminuer progressivement, je recommandai encore au pilote d'être prudent, et comme

le vapeur (que j'ai su plus tard être le "Lisbonense" de Liverpool) continuait évidemment sa route sans que son relèvement se modifiât, je n'hésitai pas à faire stopper la machine (5 h. 27 m.) et à la lancer en arrière à toute vitesse à 5 h. 28 m., ainsi que l'ordonne l'article 18 des règles internationales, en même temps que j'indiquais ma manœuvre, à deux reprises, par les trois coups de sifflet réglementaires. C'est à cette décision que nous devons de n'avoir pas assisté à un désastre. 1321

La marche de "La Champagne" se ralentissant progressivement, le "Lisbonense" put réussir à passer devant nous mais non complètement, puisque son couronnement frappa notre étrave. Le choc fut assez faible pour que les seuls témoins oculaires aient pu se douter qu'une collision venait de se produire. Nos mécaniciens eux-mêmes ont cru que nous avions simplement heurté une bouée. 1322 Page 77.

Je compris que nos avaries n'étaient pas de nature à compromettre la sécurité de mon bâtiment, et comme cette impression fut rapidement corroborée par les rapports verbaux du 2e capitaine et du m^e^ charpentier, qui avaient constaté que le dommage était localisé sur l'avant de la première cloison étanche, je m'enquis aussitôt du "Lisbonense." Mais bien que quelques minutes à peine se fussent écoulées depuis le moment de la collision, ce vapeur avait rapidement disparu par le Swash Channel, dans lequel mon tirant d'eau ne me permettait pas de le suivre. Il ne s'était nullement préoccupé des nombreux passagers qu'il devait supposer être à mon bord. Il savait pourtant par mon signal qu'il avait abordé le paquebot français, et il connaissait, par le morceau de mon étrave, resté dans son couronnement, que mon avant était fortement endommagé. 1323 1324

C'est pour j'estime qu'en cette circonstance le capitaine et le pilote du "Lisbonense" ont manqué aux devoirs de l'humanité la plus élémentaire. Le

1325 remorquer "Assistance," qui nous convoyait toujours, n'a pas vu davantage ce qu'était devenu le "Lisbonense." J'ai appris plus tard qu'il était entré directement à New York, où il s'était amarré à son dock. La collision a été certainement causee par l'erreur d'appréciation des deux pilotes et par leur manque d'entente.

Le nôtre étant persuadé que son collègue modifierait la route ou la vitesse du "Lisbonense," non seulement parce qu'il avait répondu à notre sifflet,
1326 mais aussi parce que, en sa qualité de pilote, il devait se rendre compte que les conditions particulières dans lesquelles se trouvait placée "La Champagne" nous empêchaient de manœuvrer pour l'éviter. Il devait comprendre que nous ne pouvions exécuter l'article 16 des règles de la route à la mer, et que nous nous trouvions dans les circonstances spéciales viseés par l'article 23 de ces mêmes règles. Car il n'ignorait pas que mon bâtiment évolue difficilement à cause de sa grande longueur, il savait
1327 que notre grand tirant d'eau ne nous permettait pas de sortir du chenal, et il devait se rendre compte que nous ne pouvions même pas nous arrêter sous peine d'être jetés sur les bancs par le courant de jusant alors dans toute sa force. C'est très probablement sous l'impression de cette conviction que mon pilote continuait sa route.

Quant au pilote du "Lisbonense," il aurait dû s'apercevoir aussi bien que nous qu'une collision était imminente, et comme il avait toute liberté de
1328 manœuvrer, comme il conduisait un navire de petite dimension et d'évolution facile, dont le tirant d'eau lui permettait de passer sur tous les bancs du voisinage, comme il avait le courant debout lui permettant de stopper sans aucun danger, rien ne peut le justifier de n'avoir fait aucune manœuvre.

Or, ce bâtiment n'a rien fait pour éviter la collision, violant ainsi les prescriptions des articles 18 et 23 des règles internationales.

En conséquence de l'exposé qui précède, je déclare protester, tant en mon nom qu'au nom de la Compagnie Générale Transatlantique, contre le vapeur anglais "Lisbonense" de Liverpool, qui, par son imprudence, a occasionné la collision relatée plus haut, me réservant de signifier la présente protestation contre son capitaine et contre ses armateurs dès que je serai en mesure de le faire, et de poursuivre en justice mon action en indemnités par suite du dommage causé. 1329

Après la collision, je suis resté pendant un quart d'heure sur le lieu de l'évènement, me maintenant de mon mieux avec le secours de l' "Assistance," puis j'ai évolué pour rentrer à New York, mon bâtiment n'étant pas en état de naviguer en sécurité. Pendant l'évolution "La Champagne" a été drossée par le courant sur la bouée B No. 5, qui s'est prise sous nos formes de l'arrière à babord. Nous avons travaillé pendant longtemps sans réussir à dégager cette bouée, et j'ai dû mouiller une ancre pour empêcher le courant de nous entraîner sur les bancs. 1330 1331
Puis avec l'aide d'un nouveau remorqueur nommé "Hudson" nous avons réussi à nous débarrasser de la bouée. J'ai fait ensuite route sur New York à petite vitesse. Le paquebot anglais "Etruria" se trouvait encore mouillé à l'endroit même où la brume nous avait arrêtés l'un et l'autre. Sur ma demande, le capitaine de ce bâtiment a bien voulu se charger de nos dépêches, qui, sans son amabilité, auraient été retardées à New York pendant quatre jours. 1332

Je suis arrivé au dock de la Compagnie sans autre incident.

Au cours des évènements qui précèdent, je n'ai eu qu'à me louer de mes officiers ainsi que de mon équipage. Tous ont fait preuve d'obéissance, de sang-froid et de dévouement.

Je clos ici mon rapport de mer certifié sincère et de bonne foi pour servir à ce que de droit, me Page 78.

1333 réservant de l'amplifier ultérieurement si besoin est.

L. BOYER.

Et Nous, Vicomte Paul d'Abzac, Consul Général de France, concédant acte au capitaine Boyer de ses dires et délarations, ordonnons que sur le tout il sera informé ; pour l'information prise lui servir, ce que de raison, et avons signé.

(Le sceau.) Le Consul Général,

1334 V. PAUL D'ABZAC.

Et à l'instant se sont présentés :

1. M. Dupont, Edouard Joseph, capitaine au long cours, inscrit à Granville, Fo. 9, No. 284, remplissant à bord les fontions de deuxiéme capitaine, lequel a déclaré qu'il se trouvait à la partie "avant" du navire au moment de la collision, de laquelle exposition lui ayant fait lecture, a dit moyennant serment qu'elle contenalt la vérité, et qu'il le sait pour avoir été présent lorsque le tout est arrivé, et a signé avec nous, Consul Général de France.

Renvoi approuve.

1335

Le Consul Général.

(Le sceau.) V. PAUL D'ABZAC. E. DUPONT.

2. M. Blanqui, Nicolas, capitaine au long cours, inscrit à Blaye, Fo. 75, No. 149, âgé de 39 ans, remplissant à bord les fonctions de premier lieutenant, lequel a déclaré qu'il se trouvait sur la passerdlle au moment de la collision. Aprés avoir entendu lecture de l'exposition ci-dessus, M. Blanqui a dit, moyennant serment, que son contenu est véritable, et qu'il le sait pour avoir été présent lorsque le tout est arrivé, et a signé avec nous, susdit Consul Général de France.

Renvoi approuve.

1336

Le Consul Général,

V. PAUL D'ABZAC. N. BLANQUI.

3. M. Blanc, Charles, capitaine au long cours, inscrit à Marseille, Fo. et No. 4265, âgé de 33 ans,

remplissant à bord les fonctions de deuxiéme lien- Renvoi 1337
tenant, lequel a déclaré qu'il se trouvait sur la pas- approuve.
serelle au moment de la collision. Après avoir entendu lecture de l'exposition ci-dessus, M. Blanc a dit, moyennant serment, que son contenu est véritable et qu'il le sait pour avoir été présent lorsque le tout est arrivé, et a signé avec nous, Consul Général de France.

Le Consul Général.
V. Paul d'Abzac. Ch. Blanc.

1338

4. M. Bécot, Joseph, capitaine au long cours, inscrit à Paimpol, Fo. 50, No. 99, remplissant à bord les fonctions de troisième lieutenant, âgé de 39 ans, lequel a déclaré qu'il se trouvait sur la passerelle au moment de la collision. Après avoir entendu lecture de l'exposition ci-dessus, M. Bécot a dit, moyennant serment, que son contenu est véritable, et qu'il le sait pour avoir été présent lorsque le tout est arrivé, et a signe avec nous, susdit Consul Général de France. 1339

Le Consul Général,
V. Paul d'Abzac. J. Bécot.

5. M. Rouxel, Joseph Marie, quartier maitre manœuvre de premiére classe, inscrit à Dinan, Fo. 3173, No. 191, remplissant à bord les fonctions de maître d'équipage, âgé de 39 ans, lequel a déclaré qu'il se trouvait par le travers de la cale No. 2 au moment de la collision. Après avoir entendu lecture de l'exposition ci-dessus, M. Rouxel a dit, 1340
moyennant serment, que son contenu est véritable, et qu'il le sait pour avoir été présent lorsque le tout est arrivé, et a signé avec nous, susdit Consul Général de France.

Le Consul Général,
V. Paul d'Abzac. Rouxel.

6. Le nommé Michel, François-Marie, matelot de première classe, gabier breveté de première classe,

1341 inscrit à St.-Brieuc, Fo. 1452, No. 919, lequel a déclaré qu'il était de veille à bord de "La Champagne" au moment de la collision. Après avoir entendu lecture de l'exposition ci-dessus le nommé Michel a dit, moyennant serment, que son contenu est véritable, et qu'il le sait pour avoir été présent lorsque le tout est arrivé, et a signé avec nous, sus dit Consul de France.

Le Consul Général,
V. Paul d'Abzac. Michel.

1342 7. Le nommé Maxime, Pierre-Marie, matelot de première classe, gabier breveté de première classe,
Page 79. inscrit à St. Brieuc, Fo. 1347, No. 696, lequel a déclaré qu'il était de veille à l'avant à bord de "La Champagne" au moment de la collision. Après avoir entendu lecture de l'exposition ci-dessus, le nommé Maxime a dit, moyennant serment, que son contenu est véritable, et qu'il le sait pour avoir été présent lorsque le tout est arrivé, et a signé avec
1343 nous, susdit Consul Général de France.

Le Consul Général,
(Le sceau.) V. Paul d'Abzac.
Au moment de signer, le nommé Maxime a délaré ne savoir pas écrire et a apposé sa croix. +

8. Le nommé Kergal, Jacques-Marie, quartier-maître manœuvre de deuxième classe, inscrit à St. Malo, Fo. 315, No. 632, lequel a déclaré qu'il était
1344 de veille à l'avant, à bord de "La Champagne" au moment de la collision. Après avoir extendu lecture de l'exposition ci-dessus, le nommé Kergal a dit, moyennant serment, que son contenu est véritable et qu'il le sait par avoir été présent lorsque le tout est arrivé, et a signé avec nous, Consul Général de France.

Le Consul Général,
(Le sceau.) V. Paul d'Abzac. Kergall.

9. Le nommé Le Gonidec, François, inscrit provisoire, inscrit à Paimpol, Fo. 276, No. 1101, lequel a déclaré qu'il était de veille à l'avant, à bord de "La Champagne," au moment de la collission. Après avoir entendu lecture de l'exposition ci-dessus, le nommé Le Gonidec a dit, moyennant serment, que son contenu est véritable, et qu'il le sait pour avoir été présent lorsque le tout est arrivé, et a signé avec nous, susdit Consul Général de France. 1345

Le Consul Général,
(Le sceau.) V. Paul d'Abzac. Le Gonidec F. 1346

10. Le nommé Lenduger, Olivier François Marie, matelot de première classe, inscrit à Saint-Brieuc, Fo. 1361, No. 722, lequel a déclaré qu'il était timonier de barre au moment de la collision. Après avoir entendu lecture de l'exposition ci-dessus, le nommé Lenduger a dit, moyennant serment, que son contenu est véritable, et qu'il le sait pour avoir été présent lorsque le tout est arrivé, et a signé avec nous, susdit Consul Général de France. 1347

Le Consul Général,
(Le sceau.) V. Paul d'Abzac. Lenduger.

11. Le nommé Le Gougec, François-Marie, matelot de 2me classe, gabier breveté de 2me classe, inscrit à Lannion, Fo. 744, No. 1488, lequel declare qu'il était timonier de sifflet au moment de la collision. Après avoir entendu lecture de l'exposition ci-dessus, le nommé Le Gougec a dit, moyennant serment, que son contenu est véritable et qu'il le sait pour avoir été présent lorsque le tout est arrivé, et a signé avec nous, susdit Consul Général de France. 1348

Le Consul Général,
V. Paul d'Abzac. F. Le Gougec.

12. Le nommé Briand, Joseph-Marie-Jean-François, matelot de 1re classe, gabier breveté de 1re classe, inscrit à Dinan, Fo. 2202, No. 412, lequel a

1349 déclaré qu'il était timonier au porte-voix de l'avant au moment de la collision. Après avoir entendu lecture de l'exposition ci-dessus, le nommé Briand a dit, moyennant serment, que son contenue est véritable et qu'il le sait pour avoir été présent lorsque le tout est arrivé, et a signé avec nous, susdit Consul Général de France.

Le Consul Général,
V. PAUL D'ABZAC. BRIAND.

1350 13. Le nommé Gautier, Francois-Marie, matelot de 1re classe, gabier breveté, inscrit à Paimpol, Fo. 5539, No. 11078, lequel a déclaré qu'il était timonier de passerelle au moment de la collision. Après avoir entendu lecture de l'exposition ci-dessus le nommé Gautier a dit, moyennant serment, que son contenu est véritable, et qu'il le sait pour avoir été présent lorsque le tout est arrivé, et a signé avec nous, susdit Consul Général de France.

Le Consul Général,
1361 V. PAUL D'ABZAC. GAUTIER.

14. Le nommé De Vère, du bateau No. 4, polite a bord de "La Champagne" au moment de l'accident, lequel a déclaré qu'il était sur la passerelle, à côte du commandant, au moment de la collision. Après avoir entendu lecture de l'exposition ci-dessus, le nommé De Vère a dit, moyennant serment, que son contenu est véritable, mais que le commandant a fait une erreur involontarie sur deux points; 1° En ce qui regarde le coup de sifflet, le capitaine Boyer déclare que "La Champagne" a siffié une fos pour indiquer que nous dirigions notre route sur tribord, mais c'est le "Lisbonense" qui a lancé le premier coup de sifflet, et nous avons répondu par un coup de sifflet; 2° Que la boueé mentionnée dans le rapport du capitaine n'était pas la bouée B No. 5 (cinq), mais bien la bouée B No. 3 (trois). Il ajoute (le pilote De Vére) que "La Champagne"

Approuvé le renvoi. "H. Devere. "D'A."
1352

était poussée dans le sud non seulement par le courant de jusant, mais aussi par la brise (strong wind) qui soufflait trés fort due N. O.; et qu'il le sait pour avoir été présent lorsque le tout est arrivé, et a signé avec nous, susdit Consul Général, approuvant un mot rayé nul. 1353 Page 80.

Le Consul Général,
(Le sceau.) V. PAUL D'ABZAC. HENRY A. DEVERE, Pilote

15. M. Parker, Joseph, capitaine du remorqueur "Assistance," lequel a déclaré qu'il se trouvait avec son remorqueur à petite distance par la hanche de tribord de "La Champagne." Aprés avoir entenpu lecture de l'exposition ci-dessus, le nommé Parker, Joseph a dit, moyennant surment, que son contenu est véritable, mase que le commandant a fait une erreur involontarie sur deux points: 1° En ce qui concerne les coups de sifflet, le capitaine Boyer déclare que "La Champagne" a sifflé une fois pour indiquer que nous dirigions notre route sur tribord, mais c'est le "Lisbonense" qui a lancé le premier coup de sifflet, et nous avons répondu par un coup de sifflet; 2° Que la bouée mentionnée dans le rapport du capitaine Boyer n'était pas la bouée B numéro 5 (cinq), mais bien la bouée B numéro 3 (trois). M. Parker ajoute que "La Champagne" était poussée dans le sud non seulement par le courant de jusant, mais aussi par la brise (strong wint) qui soufflait trés fort du N. O., et qu'il le sait pour avoir été présent lersque le tout est arrivé, et a signé avec nous, Consul Général. Approuvé un mot rayé nul, un mot en surcharge et deux lignes interlignées. 1354 1355 1356

Le Consul Général,
V. PAUL D'ABZAC. JOSEPH PARKER.

Ce jour d'hui douzedécembre mil huit cent quatre-vingt-dix, à midi, Verso page 81. 339.

Par devant nous, Vicomte Paul d'Abzac, Consul Général de France, a comparu :

1357 M. Jean Laurent Boyer, lieutenant de vaisseau en retraite, commandant le paquebot de la Compagnie Générale Transatlantique "La Champagne,"

Lequel, après avoir entendu lecture des dépositions inscrites d'autre part du pilote De Vere et du capitaine Parker, commandant du remorqueur "Assistance," a déclaré que, en présence de l'affirmation du pilote De Vere, il ne peut assurer que le premier coup de sifflet ait été donné par "La Champagne;" il est possible qu'occupé à suivre les si-
1358 gnaux pyrotechniques, il n'ait pas entendu le premier coup de sifflet donné par le "Lisbonense." La déclaration faite dans le rapport de mer par le capitaine était sincère et de bonne foi, mais il est possible qu'elle ne soit pas absolument exacte, le capitaine ayant pu commettre une erreur involontaire, et il lui est impossible de dire si l'affirmation du pilote est plus ou moins exacte que la sienne propre.

Le rapport de mer est peut-être erroné plus loin
1359 lorsqu'il porte que la bouée B No. 5 a été déplacée par "La Champagne." Les renseignements que le capitaine a pris à ce sujet auprès du service américain compétent ne sont pas encore absolument probants.

Aussi le capitaine déclare-t-il, en attendant les informations ultérieures, qu'il y a doute sur le numéro de la bouée déplacée par "La Champagne" et qui pourrait être le numéro trois et non pas le numéro cinq.

1360 L. Boyer.

Et à l'instant se sont présentés:

Page 82. 1. M. Blanqui, Nicholas, capitaine au long cours, premier lieutenant à bord de "La Champagne," auquel nous avons posé les questions ci-après:

1. Quel est des deux vapeurs, "La Champagne" et le "Lisbonense," celui qui le premier a donné le signal de la route qu'il suivait?

Réponse.—Etant dans ma chambre quelques minutes vavant la collision, j'ai entendu le coup de sifflet d'un steamer ; ce n'était pas celui de "La Champagne." Je sortis de ma chambre aussitôt et j'ai entendu alors le coup de sifflet de "La Champagne." 1361

2. Quel est le numéro de la bouée sur laquelle "La Champagne" a été jetée ?

Réponse.—Je n'ai pas vu le numéro de la bouée ; c'était la seconde bouée que nous passions.

En foi de quoi il a signé avec nous, Consul Général. 1362

Le Consul Général,

V. Paul d'Abzac. N. Blanqui.

2. M. Blanc, Charles, capitaine au long cours, deuxième lieutenant à bord de "La Champagne," auquel nous avons posé les questions ci-après :

1. Quel est'de ces deux vapeurs, "La Champagne" et le "Lisbonense," celui qui le premier a donné le signal de la route qu'il suivait? 1363

Réponse.—J'ai communiqué l'ordre au timonier de donner un coup de sifflet. J'ai entendu un coup de sifflet du "Lisbonense," mais je ne puis certifier si c'était avant ou aprés le coup de sifflet de "La Champagne."

2. Quel est le numéro de la bouée sur laquelle "La Champagne" a été jetée ?

Réponse.—Je n'ai pas vu le numéro de la bouée, mais tout me porte à croire que c'est la bouée numéro trois, d'après la manœuvre qui a été faite pour éviter. 1364

En foi de quoi il a signé avec nous, Consul Général.

Le Consul Général.

(Le sceau.) V. Paul d'Abzac. C. Blanc.

3. M. Bécot, Joseph, capitaine au long cours, torisiéme lieutenant à bord de "La Champagne," auquel nous avons posé les questions ci-après :

1365 1. Quel est de ces deux vapeurs "La Champagne" et le "Lisbonense," delui qui le premier a donné le signal de la route qu'il suivait ?

Réponse.—J'ai entendu un coup de sifflet au moment où nous brûlions un feu vert pour appeler le pilote. Ce nétait pas le sifflet de "La Champagne-" Il y avait à ce moment au moins deux vapeurs en vue. Aussitôt "La Champagne" a répondu par un coup de sifflet.

2. Quel est le numéro de la bouée sur laquelle
1366 "La Champagne" a été jetée ?

Réponse.—Je n'ai pas pu lire l'inscription de la bouée·

En foi de quoi il a signé avec nous, Consul Général.

Le Consul Général,
(Le sceau.) V.Aaul d'Abzac. J. Bécot.

4. Le nommé Rouxel, Joseph Marie, quartier-maître manœuvre de 1re classe, maître d'équipage
1367 à bord de "La Champagne," auquel nous avons posé les questions ci-après :

1. Quel est de ces deux vapeurs, "La Champagne" et le "Lisbonense," celui qui le premier a donné le signal de la route qu'il suivait ?

Réponse.—Je n'ai entendu que trois coups de sifflet donnés par "La Champagne" à deux reprises différentes.

2. Quel est le numéro de la bouée sur laquelle "La Champagne" a été jetée ?

1368 Réponse.—Je n'ai pas pu lire l'inscription de la bouée.

En foi de quoi il a signé avec nous, Consul Général.

Le Consul Général,
(Le sceau.) V. Paul d'Abzac. Rouxel.

5. Le nommé Michael, François Marie, matelot de 1re classe, gabier breveté de 1re classe, auquel nous avons posé les questions ci-après :

1. Quel est de ces deux vayeurs, "La Champagne" et le "Lisbonense," celui qui le premier a donné le signal de la route qu'il suivait? 1369

Réponse.—J'ai entendu un coup de sifflet donné par "La Champagne." Je n'ai pas entendu le sifflet du "Lisbonense." C'est moi qui ai signalé le "Lisbonense."

2. Quel est le numéro de la bouée sur laquelle "La Champagne" a été jetée?

Réponse.—J'étais dans la baleiniére et ai aidé à dégager la bouée. Je n'ai pas vu son numéro. 1370

En foi de quoi, il a signé avec nous, Consul Général. Page 83.

Le Consul Général,
(Le sceau.) V. PAUL D'ABZAC. MICHEL.

6. Le nommé Maxime, Pierre-Marie, matelot de 1re classe, gabier breveté de 1re classe, auquel nous avons posé ler questions ci-après:

1. Quel est de ces deux vapeurs, "La Champagne" et le "Lisbonense," celui qui le premier a donné le signal de la route qu'il suivait? 1371

Rénonse.—Quand on a signalé le "Lisbonense," j'ai entendu trois coups de sifflet de "La Champagne." Je n'ai pas entendu le sifflet du "Lisbonense."

2. Quel est le numéro de la bouée sur laquelle "La Champagne" a été jetée?

Réponse.—Je n'ai pas vu le numéro de la bouée.

En foi de quoi il a signé avec nous, Consul Général, approuvant un mot rayé nul. 1372

Le Consul Général,
(Le sceau.) V. PAUL D'ABZAC.

Au moment de signer le nommé Maxime a déclaré ne pas savoir signer et a posé sa croix. *

7. Le nommé Kergal, Jacques-Marie, quartier-maître manœuvre de 2me classe, auquel nous avons posé les questions suivantes:

1373 1. Quel est de ces deux vapeurs, "La Champagne" et le "Lisbonense," celui qui le primier a donné le signal de la route qu'il suivait?

Réponse.—Au moment où je prenais mon poste de veille au bossoir, j'ai entendu trois coups de sifflet de "La Champagne." Je n'ai pas entendu le sifflet du "Lisbonense."

2. Quel est le numéro de la bouée sur laquelle "La Champagne" a été jetée?

Réponse.—J'étais dans la baleinière et ai aidé à
1374 dégager la bouée. J'ai cru voir sur cette bouée le numéro cinq.

En foi de quoi il a signé avec nous, Consul Général, approuvant un mot rayé nul.

Le Consul Général,
V. Paul d'Abzac. Kergall.

8. M. Dupont, Edouard-Joseph, capitaine au long cours, deuxième capitaine à bord de "La Champagne," auquel nous avons posé les questions sui-
1375 vantes:

1. Quel est de ces deux vapeurs' "La Champagne" et le "Lisbonense," celui qui le premier a donné le signal de la route qu'il suivait?

Réponse.—J'ai entendu un coup de sifflet de "La Champagne;" j'ai entendu également un coup de sifflet du "Lisbonenfe," mais je ne puis certifier lequel des deux vapeurs a sifflé le premier.

2. Quel est le numéro de la bouée sur laquelle "La Champagne" a été jetée?

1376 Réponse.—Je n'ai pas vu la bouée, mon poste étant à l'avant.

En foi de quoi il a signé avec nous, Consul Général.

Le Consul Général,
V. Paul d'Abzac, E. Dupont.

9. Le Gonidec, François, inscrit provisoire, auquel nous auons posé les questions suivantes:

1. Quel est de ces deux vapeurs, "La Champagne" et le "Lisbonense," celui qui le premier a donnes le signal de la route qu'il suivait? 1377

Réponse.—J'ai entendu trois coups de sifflet de "La Champagne." Je n'ai pas entendu le sifflet du "Lisbonense."

2. Quel est le numéro de la bouée sur laquelle "La Champagne" a été jetée?

Réponse.—Je n'ai pas vu le numéro de la bouée.

En foi de quoi il a signé avec nous, Consul Général. 1378

Le Consul Général,

V. Paul d'Abzac. Le Gonidec.

10. Le nommé Leuduger, Olivier François-Marie, matelot de 1re classe, gabier breveté de 1re classe, auquel nous avons posé les questions suivantes:

1. Quel est de ces deux vapeurs, "La Champagne" et the "Lisbonense," celui qui le premier a donné le signal de la route qu'il suivait? 1379

Réponse.—J'étais à la barre. J'ai entendu trois coups de sifflet de "La Champagne" répétés à deux reprises différentes Je n'ai pas entendu le sifflet du "Lisbonense."

2. Quel est le numéro de la bouée sur laquelle "La Champagne" a été jetée?

Réponse.—J'étais à la barre. J'ai pu voir par le hublot et par la porte une bouée portant le numéro trois.

En foi de quoi, il a signé avec nous, Consul Général, approuvant deux mots rayés nuls, et trois mots en surcharge. 1380

Leuduger.

Page 84

11. Le nommé Le Gougec, François Marie, matelot de 2me classe, gabier brevetê de 2me classe, auquel nous avons posê les questions suivantes:

1. Quel est de ces deux vapeurs, "La Champa-

gne" et le "Lisbonense," celui qui le premier a donné le signal de la route qu'il suivait?

Réponse.—J'étais de service au sifflet. Un instant après que le "Lisbonense" a été signalé, j'ai reçu l'ordre de donner trois coups de sifflet à deux reprises différentes. Je ne me souviens pas avoir donné un coup de sifflet isolé avant cela.

2. Quel est le numéro de la bouée sur laquelle "La Champagne" a été jetée?

Réponse.—J'étais sur la passerelle. Je n'ai pas pu voir le numéro de la bouée.

En foi de quoi il a signé avec nous, Consul Général. Approuvé deux mots rayés nuls.

Le Consul Général,
(Le sceau.) V. PAUL D'ABZAC. F. LE GOUGEC.

12. Le nommé Briand, Joseph Marie Jean François, matelot de 1re classe, gabier breveté de 1re classe, auquel nous avons posé les questions ci-après :

1. Quel est de ces deux vapeurs, "La Champagne" et le "Lisbonense," celui qui le premier a donné le signal de la route qu'il suivait?

Réponse.—J'ai entendu trois coups de sifflet de "La Champagne." Je n'ai pas entendu le sifflet du "Lisbonense."

2. Quel est le numéro de la bouée sur laquelle "La Champagne" a été jetée?

Reponse.—Se n'ai pas vu le numéro de la bouée.

En foi de quoi il a signé avec nous, Consul Général.

Le Consul Général,
V. PAUL D'ABZAC. BRIAND.

13. Le nommé Gauthier, Joseph François Marie, matelot de 1re classe, gabier breveté, auvgel nous avons posé les questions ci-après :

1. Quel est de ces deux vapeurs, "La Cham-

pagne" et le "Lisbonense," celui qui le premier a donné le signal de la route qu'il suivait? 1385

Réponse—Après que le "Lisbonense" était signalé, j'ai entendu un coup de sifflet donné par "La Champagne." Un moment après, "La Champagne" a donné deux coups de sifflet. Je n'ai pas entendu le sifflet du "Lisbonense."

2. Quel est le numéro de la bouée sur laquelle "La Champagne" a été jetée?

Réponse—J'étais dans la passerelle et je n'ai pas pu voir le numéro de la bouée. 1386

En foi de quoi il a signé avec nous, Consul Général.

Le Consul Général,

(Le sceau.) V. PAUL D'ABZAC. GAUTIER.

Nous avons donné acte au lieutenant Boyer, commandant "La Champagne," des déclarations ci-dessus consignées pour lui servir et valoir ce qu'il appartiendra, et nous, Vicomte Paul d'Abzac, Consul Général, avons signé les présentes, et y avons apposé le sceau de ce Consulat Général les jour, mois et an que dessus. 1387

Approuvé un mot rayé nul.

(Le sceau.) Le Consul Général,

V. PAUL D'ABZAC.

1388

1389 CONSULAT GÉNÉRAL DE FRANCE, NEW YORK.

I, Viscount Paul d'Abzac, Consul General de France, at New York, do hereby certify that the foregoing are respectively full, true and faithful copies of the statements of Captain Jean Laurent Boyer, and of the officers and crew of the French steamship "La Champagne," and also of the statements of Henry A. de Vere, Pilot of the said steamship "La Champagne," and of Joseph Parker, captain of the steamship "Assistance," and also of the additional or extended statements of the said
1390 Captain Jean Laurent Boyer, and the officers and crew of the said steamphip "La Champagne" concerning the collision between the said steamship "La Champagne" and the British steamship "Lisbonense" on the 7th day of December, 1890, as the same were taken down and written out from the oral statements of the said witnesses by the Chancellor of my Consulate, and in my Consular bureau at the dates therein stated, and now remain of record therein in my Consular "Registre des actes de la Navigation" on folios 76, 77, 78, 79, part of 80, verso of 81, 82, 83 and 84, pursuant to the provisions
1391 of Art. 242 of the Code of Commerce of France.

And I further certify that the said copies are full and true transcripts of all said statements and all other matters remaining of record in that behalf in my office as aforesaid.

In testimony whereof, I have hereunto set my hand and the seal of the Consulate the twenty-third day of April, 1892.

Pr. LE CONSUL GÉNÉRAL,
et par autorisation
Le Chancelier.

1392 J. DUPAS.

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CONSULAT GENERAL
DE FRANCE,
NEW YORK.

This day, ninth December, One thousand eight hundred ninety at two o'clock in the afternoon; Page 76. 1393

Before us, Viscount Paul d'Abzac, Consul General of France at New York, has appeared Jean Laurent Boyer, Lieutenant retired, commanding the packet of the Compagnie Générale Transatlantique "La Champagne."

Who has declared to us under oath, that which follows:—I left the dock at New York the 6 November, 1890, at 24 minutes past noon, having on board the mails, a full cargo of general merchandise and 1394
454 passengers. The weather being foggy I retained the tug "Assistance" to make my course clear; The fog became thicker and thicker as we went down the river, and I was obliged to come to anchor in the lower roadstead at 2 o'clock 20 minutes, the dense fog depriving us of all view. The atmosphere cleared up in the night; At 4 o'clock we distinguished the course lights. I got under weigh still escorted by the "Assistance" which aided us to turn around the S. W. Spit and which continued to 1395
follow us in the Main channel which we were decending prudently, the engine at 35 turns, imparting a speed of about ten knots and a half to the packet. A little before passing the meridian of Sandy Hook we had perceived a steamer going up the South channel and showing us her red light. This steamer could not but have perceived us, for we had made opposite Sandy Hook the night signal of the Company, consisting of three Bengal lights, blue, white, red, then immediately after, we burned a blue torch 1396
to call the boat of the Pilot. Nevertheless the bearing of the steamer remaining perceptibly the same I invited the Pilot to take care and he ordered the giving of a blast of the whistle to which the other steamer responded. Seeing the distance between the two vessels diminish gradually I recommended again to the pilot to be prudent and as the steamer (which I knew later to be the Lisbonense of Liver-

1389 CONSULAT GÉNÉRAL DE FRANCE, NEW YORK.

I, Viscount Paul d'Abzac, Consul General de France, at New York, do hereby certify that the foregoing are respectively full, true and faithful copies of the statements of Captain Jean Laurent Boyer, and of the officers and crew of the French steamship "La Champagne," and also of the statements of Henry A. de Vere, Pilot of the said steamship "La Champagne," and of Joseph Parker, captain of the steamship "Assistance," and also of the additional or extended statements of the said
1390 Captain Jean Laurent Boyer, and the officers and crew of the said steamphip "La Champagne" concerning the collision between the said steamship "La Champagne" and the British steamship "Lisbonense" on the 7th day of December, 1890, as the same were taken down and written out from the oral statements of the said witnesses by the Chancellor of my Consulate, and in my Consular bureau at the dates therein stated, and now remain of record therein in my Consular "Registre des actes de la Navigation" on folios 76, 77, 78, 79, part of 80, verso of 81, 82, 83 and 84, pursuant to the provisions
1391 of Art. 242 of the Code of Commerce of France.

And I further certify that the said copies are full and true transcripts of all said statements and all other matters remaining of record in that behalf in my office as aforesaid.

In testimony whereof, I have hereunto set my hand and the seal of the Consulate the twenty-third day of April, 1892.

Pr. LE CONSUL GÉNÉRAL,
et par autorisation
Le Chancelier.

1392 J. DUPAS.

NEW YORK.
QUITTCE { No. 46. / DATE 23 Avril/92
TARIF { ART...151. / OBS.
.....F.....C.....
REÇU 13 roles á 4 fr.
52 fr. J. D., $10,000.

CONSULAT GENERAL
DE FRANCE,
NEW YORK.

This day, ninth December, One thousand eight hundred ninety at two o'clock in the afternoon; Page 76. 1393

Before us, Viscount Paul d'Abzac, Consul General of France at New York, has appeared Jean Laurent Boyer, Lieutenant retired, commanding the packet of the Compagnie Générale Transatlantique "La Champagne."

Who has declared to us under oath, that which follows:—I left the dock at New York the 6 November, 1890, at 24 minutes past noon, having on board the mails, a full cargo of general merchandise and 1394
454 passengers. The weather being foggy I retained the tug "Assistance" to make my course clear; The fog became thicker and thicker as we went down the river, and I was obliged to come to anchor in the lower roadstead at 2 o'clock 20 minutes, the dense fog depriving us of all view. The atmosphere cleared up in the night; At 4 o'clock we distinguished the course lights. I got under weigh still escorted by the "Assistance" which aided us to turn around the S. W. Spit and which continued to 1395
follow us in the Main channel which we were decending prudently, the engine at 35 turns, imparting a speed of about ten knots and a half to the packet. A little before passing the meridian of Sandy Hook we had perceived a steamer going up the South channel and showing us her red light. This steamer could not but have perceived us, for we had made opposite Sandy Hook the night signal of the Company, consisting of three Bengal lights, blue, white, red, then immediately after, we burned a blue torch 1396
to call the boat of the Pilot. Nevertheless the bearing of the steamer remaining perceptibly the same I invited the Pilot to take care and he ordered the giving of a blast of the whistle to which the other steamer responded. Seeing the distance between the two vessels diminish gradually I recommended again to the pilot to be prudent and as the steamer (which I knew later to be the Lisbonense of Liver-

1397 pool) was evidently continuing her cour e without her bearing modifying itself I did not hesitate to cause the engine to stop (5 o'c, 27 minutes) and to force it going astern at full speed at 5 o'clock 28 as Article 18 of the International rules orders. At the same time I indicated twice over my manœuvre by the three regulation blasts of the whistle. It is to this decision we owe it not to have assisted at a disaster. The headway of "La Champagne" slowing
Page 77. gradually, the "Lisbonense" was able to succeed in
1398 passing before us, but not completely since her taff-rail struck our stem. The shock was so feeble that the only eye-witnesses were able to doubt that a collision had just taken place. Our engineers themselves believed that we had simply run against a buoy. I understood that our damages were not of a nature to compromise the safety of my vessel, and as this impression was quickly corroborated by the verbal reports of the 2d Captain and of the Master Carpenter who had ascertained that the damage was localized
1399 forward of the first watertight bulkhead. I inquired immediately for the "Lisbonense" but although scarcely a few minutes had elapsed since the moment of the collision, that steamer had rapidly disappeared by the Swash channel in which my draft of water did not permit me to follow him. He did not at all preoccupy himself with the numerous passengers which he ought to have supposed to be on board my vessel. He knew nevertheless by my signal that he had collided with the French packet, and he
1400 knew by the piece of my stem remaining in his taff-rail that my forward part was very much damaged. This is why I deem that in this circumstance the Captain and the Pilot of the "Lisbonense" have been wanting to the duties of the most elementary humanity. The tug "Assistance" which was still convoying us, saw no more what had becomeof the "Lisbonense." I learned later, that he had directly entered New York where he had made himself fast to his dock.

The collision has certainly been caused by the error 1401
of appreciation of the two pilots and through their lack of agreement. Ours was persuaded that his colleague would modify the course or the speed of the "Lisbonense" not only because he had responded to our whistle, but also because in his capacity of Pilot he ought to take into account that the special conditions in which "La Champagne" found herself placed prevented us from manœuvering to avoid her. He ought to understand that we could not execute the Article 16 of the rules of the road 1802
to the sea, and that we found ourselves in the special circumstances aimed at by the Article 23 of those same rules, for he was not ignorant that my vessel turns with difficulty because of her great length. He knew that our great draft of water did not permit us to go out of the channel, and he ought to take into account that we could not even stop under penalty of being thrown on the banks by the current of the ebb-tide then in all its force. It is very probable under the impression of this convic- 1403
tion that my Pilot continued his course. As to the Pilot of the "Lisbonense" he should have perceived as well as we that a collision was imminent, and as he had all liberty to manœuvre, as he was conducting a vessel of small dimensions and of easy manœuvre whose draft of water permitted him to pass over all the neighboring banks, as he had the current from ahead permitting him to stop without any danger, nothing can justify him in not having made any manœuvre. Now this steamer has done noth- 1404
ing in order to avoid the collision, thus violating the prescriptions of Articles 18 and 23 of the International rules.

In consequence of the showing which precedes I declare that I protest as much in my name as in the name of the Compagnie Générale Transatlantique against the English steamer "Lisbonense" of Liver-

1405 pool, who by her imprudence has occasioned the collision related above, reserving to myself to serve the present protest against her Captain and against his owners as soon as I shall be in a position to do it, and to prosecute at law my suit for indemnity in consequence of the damage caused.

After the collision I remained during a quarter of an hour upon the place of the occurrence holding myself up as best I could with the help of the "Assistance," then I manœuvred to re-enter New York,
1406 my vessel not being in condition to navigate in security. During the manœuvre "La Champagne" was swept by the current upon the buoy B, No. 5, which caught itself under our port after-body. We labored during a long time without succeeding in disengaging this buoy, and I had to let go one anchor in order to prevent the current from dragging us on the banks. Then with the aid of another tug named "Hudson" we succeeded in disentangling ourselves from the buoy. I then shaped my
1407 course for New York at slow speed. The English packet "Etruria" was still anchored at the place where the fog had stopped each of us. At my request the Captain of this vessel kindly consented to take charge of our mails, which, without his kindness, would have been delayed in New York during four days. I arrived at the dock of the Company without other incident. During the course of the events which precede I have only had to praise myself for my officers as well as for my
1408 crew. All have given proof of obedience, of coolness and of devotion.

Page 78. I close here my protest certified, sincere and in good faith as may be right, reserving to myself to extend it later if need be.

L. BOYER.

And we, Viscount Paul d'Abzac, Consul General of France, granting record to Captain Boyer of his

sayings and declarations, order that information be taken as to everything, in order that the information taken may serve him as may be right, and have signed 1509

(THE SEAL) The Consul General,
V. PAUL D'ABZAC.

and the same time presented themselves,

1st:—Mr. Dupont, Edward Joseph, shipmaster, registered in Granville fo. 9 No. 284 fulfilling on board the duties of second Captain, who has declared that he was at the forward part of the ship at the moment of the collision (to whom having caused the reading of which statement), has said under oath that it contained the truth and that he knows it from having been present when everything happened and has signed with us, Consul General of France, Additional words appoved. 1410

The Consul General,
(SEAL.) V. PAUL D'ABZAC. E. DUPONT.

1411

2d:—Mr. Blanqui, Nicholas, Shipmaster registered in Blaye, fo. 75 No. 149, aged 39 years, fulfilling on board the duties of first lieutenant, who has declared that he was on the bridge at the moment of the collision ; after having heard reading of the above statement Mr. Blanqui has said under oath, that its contents are truthful and that he knows it because he was present when everything happened, and has signed with us the abovenamed Consul General of France, Additional words approved.

1412

The Consul General,
V. PAUL D'ABZAC. N. BLANQUI.

3d:—Mr. Blanc, Charles, Shipmaster, registered in Marseilles fo. and No. 4265 aged 33 years fulfilling on board the duties of second lieutenant, who declares that he was on the bridge at the moment of the collision, after having heard reading of the above statement, Mr. Blanc has said, under oath, that its Additional words approved.

1413 contents are truthful and that he knows it from having been present when everything happened, and has signed with us, Consul General of France,

The Consul General,

V. PAUL D'ABZAC. CH. BLANC.

4th :—Mr. Joseph Becot, shipmaster registered in Paimpol, fo. 50 No. 99, fulfilling on board the duties of third lieutenant, aged 39 years, who has declared that he was on the bridge at the moment of the col-
1414 lision, after having heard reading of the above statement, Mr. Becot says, under oath that its contents are truthful and that he knows it on account of having been present when everything happened, and has signed with us, above named Consul General of France.

The Consul General,

V. PAUL D'ABZAC. J. BECOT.

5th:—Mr. Rouxel, Joseph Marie, Boatswain of the first class, registered at Dinan fo. 3173 No. 191 ful-
1415 filling on board the duties of Boatswain, aged 39 years, who has declared that he was opposite hold No. 2 at the moment of the collision. After having heard reading of the above statement Mr. Rouxel says, under oath, that its contents are truthful, and that he knows it on account of having been present when everything happened, and has signed with us, above named Consul General of France,

The Consul General,

V. PAUL D'ABZAC. ROUXEL.

1416

6th :—The person named Michel, Francois Marie, seaman of the first class, Brevetted topman of the first class, registered at St. Brieuc fo. 1452 No. 919, who has declared that he was on lookout on board of the "Champagne" at the moment of the collision ; After having heard reading of the above statement, the person named Michel has said under oath, that its contents are true and that he knows it on

account of having been present when everything happened, and has signed with us, the above named Consul General of France. 1417

The Consul General,

V. PAUL D'ABZAC. MICHEL.

7th:—The person named Maximi, Pierre Marie, seaman of the first class, brevetted topman of the first class, registered at St. Brieuc, fo. 1347 No. 696 who has declared that he was on lookout forward on board of "La Champagne" at the moment of the collision; After having heard reading of the above statement, the person named Maximi has said under oath, that its contents are true and that he knows it on account of having been present when everything happened, and has signed with us above named Consul General of France. 1418

The Consul General,

V. PAUL D'ABZAC.

(SEAL.)

At the moment of signing the person named Maximi has declared that he does not know how to write, and has affixed his cross. 1419

X.

8th:—Kergal, Jacques Marie, Quarter-Master of Manœuvres of the 2d class, registered at St. Malo, fo. 315 No. 632, who has declared that he was on lookout forward on board of "La Champagne" at the moment of the collision: After having heard reading of the above statement, the named Kergal has said under oath, that its contents are true and that he knows it on account of having been present when everything happened and has signed with us the above named Consul General of France. 1420

The Consul General.

(SEAL) V. PAUL D'ABZAC. KERGAL.

1421 9th:—The named Le Gonidec, Francois, registered provisionally, registered at Paimpol, fo. 276 No. 1101, who has declared that he was on lookout forward on board of "La Champagne" at the moment of the collision; after having heard reading of the above statement, the named Le Gonidec has said under oath, that its contents are true and that he knows it on account of having been present when everything happened, and has signed with us, above named Consul General of France.

1422 The Consul General,

(SEAL.) V. PAUL D'ABZAC. LE GONIDEC, F.

10th:—The named Leuduger, Olivier Francois Marie, 1st class seaman, registered at St. Brieuc, fo. 1361 No. 722, who has declared that he was the quartermaster at the wheel at the moment of the collision; After having heard reading of the above statement the named Leuduger has said under oath that its contents are true and that he knows it on account of having been present when everything
1423 happened, and has signed with us, above named Consul General of France.

(SEAL.) The Consul General,

V. PAUL D'ABZAC. LEUDUGER.

11th:—The named Le Gougec, Francois Marie, seaman of the 2d class, brevetted topman of the 2d class, registered at Lannion, fo. 744 No. 1,488, who has declared that he was quartermaster at the whistle at the moment of the collision; after having
1421 heard reading of the above statement the named Le Gougec has said, under oath, that its contents are true, and that he knows it on account of having been present when everything happened, and has signed with us above named Consul General of France.

The Consul General,

V. PAUL D'ABZAC. F. LE GOUGEC.

12th:—The named Briand, Joseph Marie Jean, seaman of the 1st class, brevetted topman of the 1st class, registered at Dinan, fo. 2202 No. 412 who has declared that he was quartermaster at the speaking tube forward at the moment of the collision; after having heard reading of the above statement, the named Briand has said, under oath, that its contents are true and that he knows it on account of having been present when everything happened, and has signed with us, the above named Consul General of France. 1425 1426

The Consul General,

V. PAUL D'ABZAC. BRIAND.

13th.—The named Gautier, Francois Marie, seaman of the 1st class, brevetted topman, registered at Paimpol fo. 5539 No. 11,078, who has declared that he was quartermaster on the bridge at the moment of the collision; after having heard reading of the above statement, the named Gautier has said under oath, that its contents are true and that he knows it on account of having been present when everything happened, and has signed with us, the above-named Consul General of France. 1327

The Consul General,

V. PAUL D'ABZAC. GAUTIER.

14th.—The person named de Vere, of boat No. 4, Pilot on board of "La Champagne" at the moment of the accident, who has declared that he was on the bridge beside the Commandant, at the moment of the collision. After having heard reading of the above statement, the person named de Vere has said under oath, that its contents are true, but that the Commandant has made an involuntary error upon two points: 1st—In that which concerns the blasts of the whistle: Captain Boyer declares that "La Champagne" has whistled once in order to indicate that we were directing our course to star- 1428

Above additional words approved.—HENRY A. DEVERE, d'A.

board, but it is the "Lisbonense" which gave out the first blast of the whistle and we have replied by a blast of the whistle: 2d—That the buoy mentioned in the report of the Captain was not the buoy B number 5 (five), but probably the buoy B number 3 (three). He adds (the Pilot de Vere) that "La Champagne" was driven to the South not only by the current of the ebb-tide, but as well by the wind (strong wind) which was blowing very strong from North West; and that he knows it on account of having been present when everything happened, and has signed with us, above-named Consul-General of France, approving word crossed off void,

(THE SEAL.) The Consul General,

V. PAUL D'ACZAC.

HENRY A. DEVERE,

Pilot.

15th.—Mr. Joseph Parker, Captain of the tug "Assistance" who has declared that he was with his tug at a short distance on the starboard quarter of "La Champagne." After having heard reading of the above statement, the person named Parker, Joseph has said under oath that its contents are true, but that the Commandant has made an involuntary error upon two points: 1st—In that which concerns the blasts of the whistle Captain Boyer declares that "La Champagne" has whistled once in order to indicate that we were directing our course to starboard, but it is the "Lisbonense" which has given out the first blast of the whistle, and we have replied by a blast of the whistle: 2d—That the buoy mentioned in the report of Captain Boyer was not the buoy B No. 5 (five) but properly the buoy B No. 3 (three). Mr. Potter adds that "La Champagne" was driven to the South not only by the current of the ebb-tide, but as well by the wind (strong wind) which was blowing very strong from

the North West, and that he knows it on account of having been present when everything happened, and has signed with us Consul General. Approved one word crossed off, one word written over, and two lines interlined, 1433

The Consul General,

V. PAUL D'ABZAC. JOSEPH PARKER.

The other side of page 81.

This day twelfth December one thousand eight hundred ninety, at noon, Before us Viscount Paul d'Abzac, Consul General of France, has appeared, Mr. 1434 Jean Laurent Boyer, Lieutenant retired, commanding the Packet of La Compagnie Generale Transatlantique "La Champagne,"—who after having heard reading of the depositions elsewhere inscribed, of Pilot de Vere, and of Captain Parker, commanding the tug "Assistance," has declared that in presence of the affirmation of Pilot de Vere he cannot assert that the first blast of the whistle was given by "La Champagne;" it is possible that occupied in following the pyrotechnical signals he may not 1435 have heard the first blast of the whistle given by the "Lisbonense." The declaration made in the Protest by the Captain was sincere and in good faith, but is possible that it may not be absolutely exact, the Captain having possibly committed an involuntary error, and it is impossible for him to say if the affirmation of the pilot is more or less exact than his own. The Protest is perhaps erroneous further on, when it states that the buoy B No. 5 has been displaced by "La Champagne." The information that 1436 the Captain has taken from the competent American service is not yet absolutely convincing; therefore the Captain declares while awaiting later information, that there is doubt as to the number of the buoy displaced by "La Champagne," and which could be the number three and not the number five.

L. BOYER.

and at the same time presented themselves,

Page 82.

1437 1st:—Mr. Blanqui Nicolas, Shipmaster, first lieutenant on board of "La Champagne," to whom we have put the following questions:

1st:—Which is of the two steamers "La Champagne" and the "Lisbonense" the one which the first has given the signal of the course that it was following?

Answer:—Being in my room a few minutes before the collision, I have heard the blast of the whistle of a steamer, it was not that of "La Champ-
1438 pagne." I went out of my room at once, and I have then heard the blast of the whistle of "La Champagne."

2d:—What is the number of the buoy upon which "La Champagne" has been thrown?

Answer:—I have not seen the number of the buoy; it was the second buoy that we passed.

In testimony of which he has signed with us Consul General.

1439 The Consul General,

V. Paul d'Abzac. N. Blanqui.

2d:—Mr. Blanc, Charles, shipmaster, 2d lieutenant on board of "La Champagne" to whom we have put the following questions:

Which is of these two steamers "La Champagne" and the "Lisbonense" the one which the first has given the signal of the course it was following?

1440 Answer:—I communicated the order to the quartermaster to give a blast of the whistle. I have heard a blast of the whistle of the "Lisbonense," but I cannot certify if it was before or after the blast of the whistle of "La Champagne."

2d:—What is the number of the buoy upon which "La Champagne" has been thrown?

Answer:—I have not seen the number of the

buoy, but everything leads me to believe that it is the buoy No. three from the manœuvre which was made in order to swing. 1441

In testimony of which he has signed with us, Consul General.

(SEAL.) The Consul General,

V. PAUL D'ABZAC. C. BLANC.

3d :—Mr. Becot, Joseph, shipmaster, third lieutenant on board of "La Champagne" to whom we have put the following questions: 1442

1st :—Which is of these two steamers "La Champagne" and the "Lisbonense" the one which the first has given the signal of the course it was following?

Reply :—I have heard a blast of a whistle at the moment when we were burning a green light in order to call the Pilot. It was not the whistle of "La Champagne." There were at this moment at least two steamers in sight. The "Champagne" at once replied by the blast of the whistle. 1443

2d :—What is the number of the buoy upon which "La Champagne" has been thrown?

R. :—I have not been able to read the inscription of the buoy.

In testimony of which he has signed with us, Consul General.

(SEAL.) The Consul General,

V. PAUL D'ABZAC. J. BECOT.

1444

4th :—The named Rouxel, Joseph Marie, quartermaster of manœuvres of the 1st class, boatswain on board of "La Champagne" to whom we have put the following questions: Which of these two steamers "La Champagne" and the "Lisbonense" the one which the first has given the signal of the course it was following:

1445 Reply :—I have only heard three blasts of the whistle given by "La Champagne" at two different repetitions.

2d :—What is the number of the buoy upon which "La Champagne" has been thrown ?

Reply :—I have not been able to read the inscription of the buoy.

In testimony of which he has signed with us, Consul General.

(SEAL.) The Consul General,

1446 V. PAUL D'ABZAC. ROUXEL.

5th :- The named Michel, Francois Marie, seaman of the 1st class, breveted topman of the 1st class, to whom we have put the following questions :

1st :—Which of these two steamers "La Champagne" and the "Lisbonense" the one which the first has given the signal of the course it was following ?

1447 Reply :—I have heard a blast of the whistle given by "La Champagne." I have not heard the whistle of the "Lisbonense." It is I who signalled the "Lisbonense."

2d :—What is the number of the buoy upon which "La Champagne" has been thrown ?

Reply:—I was in the whale-boat and have aided in disengaging the buoy. I have not seen its number.

1448 In testimony of which he has signed with us Consul General.

(SEAL) The Consul General,

V. PAUL D'ABZAC. MICHEL.

Page 83.

6th :—The named Maxime Pierre Marie, seaman of the first class, brevetted topman of the first class, to whom we have put the following questions :

1st :—Which of these two steamers "La Champagne" and the "Lisbonense" the one which the first has given the signal of the course it was following? 1449

Reply:—When the "Lisbonense" was signalled, I have heard three blasts of the whistle of "La Champagne." I have not heard the whistle of the "Lisbonense."

2d:—What is the number of the buoy upon which "La Champagne" has been thrown? 1450

Reply:—I have not seen the number of the buoy.

In testimony of which he has signed with us, Consul General, approving one word crossed off void, and moment of signing the named Maxime has declared not to know how to sign and has affixed his cross. Additions Approved.

(THE SEAL.) The Consul General,
V. PAUL D'ABZAC. X

7th:—The named Kergal Jacques Marie, quartermaster of manœuvres of the 2d class to whom we have put the followiug questions:— 1451

1st:—Which is of these two steamers "La Champagne" and the "Lisbonense" the one which the first has given the signal of the course it was following?

Reply:—At the moment when I took my post of lookout at the cathead, I have heard three blastsof the whistle of "La Champagne." I have not heard the whistle of the "Lisbonense."

2d :—What is the number of the buoy upon which "La Champagne" has been thrown? 1452

Reply :—I was in the whale-boat and have aided in disengaging the buoy. I thought I saw upon this buoy the number five.

In testimony of which he has signed with us,

1453 Consul General, approving one word crossed out void.

The Consul General,

V. PAUL D'ABZAC. KERGAL.

8th :—Mr Dupont, Edouard Joseph, shipmaster, second Captain on board of "La Champagne" to whom we have put the following questions:

1st :—Which is of these two steamers "La Champagne" and the "Lisbonense" the one which the
1454 first has given the signal of the ccurse it was following?

R.:—I have heard a blast of the whistle of "La Champagne" I have equally heard a blast of whistle from the "Lisbonense," but I cannot certify which of these two steamers has whistled the first.

2d :—What is the number of the buoy upon which "La Champagne" has been thrown?

R. :—I have not seen the buoy, my post being forward.

1455

In testimony of which he has signed with us, Consul General.

The Consul General,

V. PAUL D'ABZAC. E. DUPONT.

9th :—Le Gonidec Francois, registered provisionally to whom we have put the following questions:

1st :—Which is of these two steamers "La Champagne" and the "Lisbonense" the one which the
1456 first has given the signal of the course it was following?

R.—I have heard three blasts of the whistle of "La Champagne," I have not heard the whistle of the "Lisbonense."

2d :—What is the number of the buoy upon which "La Champagne" has been thrown?

R.—I have not seen the number of the buoy.

In testimony of which he has signed with us, Consul General. 1457

The Consul General.

V. Paul d'Abzac. Le Gonidec.

10th:—The named Leuduger Olivier Francois Marie, seaman of the first class, brevetted topman of the first class, to whom we have put the following questions:

1st:—Which is of these two steamers "La Champagne" and the "Lisbonense" the one which the 1458
first has given the signal of the course it was following?

R.—I was at the wheel. I have heard three blasts of the whistle of "La Champagne" repeated at two different repetitions. I have not heard the whistle of the "Lisbonense."

2d:—What is the number of the buoy upon which "La Champagne" has been thrown?

R.—I was at the wheel. I was able to see by the port and by the door a buoy bearing the number 1459
three.

In testimony of which he has signed with us, Consul General, approving two words crossed off void and three words written over,

Leuduger.

11th:—The named Le Gougee Francois Marie, Page 84.
seaman of the second class, brevetted topman of the second class to whom we have put the following questions:— 1460

1st:—Which is of these two steamers "La Champagne" and the "Lisbonense" the one which the first has given to the signal of the course it was following?

R.:—I was on duty at the whistle. An instant after the "Lisbonense" was signalled I have re-

1461 ceived the order to give three blasts of the whistle at two different repetitions. I do not remember to have given an isolated blast of the whistle before that.

2d:—What is the number of the buoy upon which "La Champagne" has been thrown?

I was on the bridge and have not been able to see the number of the buoy.

In testimony of which he has signed with us,Con-
1462 sul General. Approved two words crossed off void.

The Consul General,

(THE SEAL.) V. PAUL D'ABZAC. F. LE GOUGE.

12th:—The named Briand, Joseph Marie Jean Francois, seaman of the 1st class, brevetted topman of the 1st class, to whom we have put the following questions:—

1st:—Which is of these two steamers "La Cham-
1463 pagne" and the "Lisbonense" the one which the first has given the signal of the course it was following?

R.:—I have heard three blasts of the whistle of "La Champagne." I have not heard the whistle of the "Lisbonense."

2d:—What is the number of the buoy upon which "La Champagne" has been thrown?

R.:—I have not seen the number of the buoy.

1464 In testimony of which he has signed with us Consul General,

The Consul General,

V. PAUL D'ABZAC. BRIAND.

13th:—The named Gauthier Joseph Francois Marie, seamen of the 1st class, topman breveted to whom we have put the following questions:—

1st.:—Which is of these two steamers "La Champagne" and the "Lisbonense" the one which the first has given the signal of the course it was following ? 1465

R.:—After the "Lisbonense" was signalled, I have heard a blast of the whistle given by "La Champagne." A moment after "La Champagne" has given three blasts of the whistle. I have not heard the whistle of the "Lisbonense."

2d:—What is the number of the buoy upon which "La Champagne" has been thrown ? 1466

R.:—I was in (sic) the bridge, and I have not been able to see the number of the buoy.

In testimony of which he has signed with us Consul General.

The Consul General,

(THE SEAL.) V. PAUL D' ABZAC. GAUTIER.

We have given record to Lieutenant Boyer, commanding "La Champagne" of the declarations here-above recorded to serve him and to have value as may concern and we, Viscount Paul d'Abzac, Consul General have signed these presents and have hereto affixed the seal of this Consulate General the day month and year as above. 1467

Approved one word crossed off void.

(THE SEAL.) The Consul General,

V. PAUL D'ABZAC.

1468

1469 U. S. CIRCUIT COURT OF APPEALS.

SECOND CIRCUIT.

Before WALLACE, LACOMBE and SHIPMAN, Circuit Judges.

ROBERT SINGLEHURST, *et al.*
Libellants and Appellants,

1470 vs.

LA COMPAGNIE GÉNÉRALE TRANSATLANTIQUE.
Appellee.

This is an appeal taken by Singlehurst and others, owners of the British Steamship *Lisbonense*, from a final decree of the U. S. District Court for the Southern District of New York, adjudging the *Lis-*
1571 *bonense* solely at fault for her collision with the appellee's steamship *La Champagne*, and dismissing appellant's cross-libel with costs.

LACOMBE, J.:

The facts in this case will best be presented by stating the findings of the District Judge.

On December 7th, 1890, the *Lisbonense*, a steamer 270 feet in length, 32 feet beam, and drawing 19½ feet, was bound into the port of New York, on a
1472 voyage from the Brazils. *La Champagne*, a steamer 503 feet long, 51½ feet beam, and drawing 25½ feet of water, was bound out from the same port. The latter on account of her deep draught was proceeding out around the Southwest Spit by way of the Main Ship Channel and Gedney's Channel; the former was coming in by way of the South Channel and the Swash, the axis of which crosses the Main

Ship Channel at an angle on the southwest side of 10 3/4 points. Each vessel was in charge of a pilot and the master of each was on deck. The night was clear, but dark, the tide had been running ebb two hours, setting to the east, or southeast with a velocity of between two and three knots; the wind was fresh from the northwest. *La Chgmpagne* in consequence of fog had been detained over night in the Lower Bay, and resumed her voyage about 4 A. M. She passed the meridian of the Sandy Hook lights at 5.20 A. M. As she passed she burned her private signal torches and soon after burned a blue light for the pilot boat outside to receive her pilot. Just prior to the burning of these signals, while she was on the regular Main Channel course, which is east by north 1/4 north, the red and white lights of the *Lisbonense* were seen about two points on the starboard bow. About the same time the green and white lights of *La Champagne* and her signal torches were observed by the *Lisbonense* without knowing or noticing their precise colors or character or understanding what line or what vessel they indicated. The *Lisbonense* was then on the usual course up the South Channel about northwest 3/8 north. The vessels at the time of sighting were about two miles apart and respectively a mile, and a mile and a half, from the point of collision. The speed of the *LaChampagne* was about twelve knots over the ground, the 10 1/2 knots derived from her engines, running at 35 revolutions, being supplemented by wind and tide. The speed of the *Lisbonense*, allowing for retardation by wind and tide, was a little less than 7 1/2 knots. The captain of *La Champagne*, upon sighting the *Lisbonense*, observed her carefully with the alidade to see whether her bearing changed or not in reference to the necessity of taking precautions against collision. No change was apparent. When the pilot of *La Champagne* sighted the

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1477 *Lisbonense* he ordered the engine to slow (an order which was not transmitted, though he believed it to be carried out) and "ported a little to—as we call "it—'shave' along the southerly side of the chan-"nel and about that time they (the *Lisbonense*, blowed the 'whistle.'" This was immediately answered by one whistle from *La Champagne*; the vessels were then about three-fourths of a mile apart. The District Judge finds that *La Champagne* "ported her helm so as to change her head-
1478 "ing about one-quarter of a point to starboard." That she did make such change is plain upon the evidence, but it seems equally plain that such change and the subsequent steadying were complete before the exchange of whistles. The evidence of the captain of *La Champagne* would support the inference that this was after the signals, but is not so positive as that of the pilot, who places it before, while the cross-libel alleges that *La Champagne did not then* port [*i. e.* after signalling] and the answer of
1479 the latter does not aver that she *did then port*, but alleges that continuously "until the collision her course was that of the line of the [Main Channel]." We are satisfied, however, as was the District Judge, that the course of *La Champagne* was in the southerly part of that channel, and that in an ebb tide with northwest wind, to have headed more to the starboard would have exposed her to serious risk of going ashore. She kept herself on the right-hand side of the channel as much as was prudently pos-
1480 sible, but she put herself on that side before the signals were exchanged. The *Lisbonense* ported "so as to change her heading half a point or a point only; whereupon she steadied her helm upon the proper course to go up the Swash Channel." The District Judge finds that "thereby she resumed substantially the same course she was on before." The appellant assigns this finding as error, contend-

ing that she swung from half a point to a point to 1481
starboard and was steadied on that new course. An examination of the evidence and of the chart satisfies us that the District Judge was correct in finding that, upon giving her signal she made no substantial change in her course. Disconnected references to the evidence of those on board might seem to support the appellant's contention, but taken as a whole that evidence indicates that she adhered to her intention, manifest from the moment she entered the South Channel, to hold her course by the South and 1482
Swash Channel lights—the two channels are in the same course—and the location of the collision confirms this conclusion; had she steadied on her course to starboard she would have crossed the axis of the Main Channel to eastward of the place of collision, proceeding not, as her cross-libel avers, up towards the Swash Channel, "or, as her captain "puts it, upon the proper course to go up the Swash "Channel"—but toward the Romer Shoals.

The captain of *La Champagne* continued care- 1483
fully to watch the *Lisbonense*, and judging manœuvres necessary, stopped his engines, and a few few seconds afterwards reversed at full speed, at the same time giving a signal of three whistles, which announced his reversal to the *Lisbonense*, and soon after repeated the same signal,. The *Lisbonense* was all the time going at full speed, and she continued at full speed until collision. The District Judge finds the distance between the two vessels, when the three whistles of *La Champagne* 1484
were blown, to be from 1,500 to 2,000 feet. Just before the collision the *Lisbonense's* helm was put hard-a-starboard to ease the blow, which nevertheless cut into her counter about two feet.

The District Judge found the *Lisbonense* in fault because, having given a signal of one whistle, she did not conform her course thereto, and held *La Champagne* free from fault.

1485 When the vessels sighted each other, *La Champagne* had the *Lisbonense* on her starboard hand.

We do not understand that either side contends that the locality was not within Coast-waters (covered by Chap. 354 of the Laws of 1885) where the Revised International Rules are to be followed, in which respect the case resembles that of the *Aurania* and the *Republic*, 29 Fed. Rep., 98, and does not call for an exact determination of the line where the "Coast-waters" end and the "harbor" of New
1486 York begins.

The sixteenth article of those rules provides that if two ships under steam are crossing so as to involve risk of collision, the ship which has the other on her own starboard side shall keep out of the way of the other. Had she been in the open ocean, *La Champagne* might have done this by coming to starboard, so as to allow the *Lisbonense* to go by a manœuvre, as her captain says, "so simple that there is no need of mentioning it," or she
1487 might have slowed or stopped so as not to reach the course of the *Lisbonense* till the latter had passed on, out of danger. We are satisfied, however, that the existing conditions of wind and tide, the depth of water in the South Channel, the length and draught of *La Champagne* were special circumstances involving such immediate dangers of navigation as would (under Art. 23) warrant her master in avoiding the particular manœuvre which compliance with the sixteenth article would naturally
1488 suggest. We are not satisfied, however, that down to the time when the whistles were exchanged, the navigators of the *Lisbonense* either knew or were fairly chargeable with knowledge of the fact that the existence of such special circumstances was going to prevent *La Champagne* from conforming her navigation to the requirements of Art. 16. We are not prepared to assent to the proposition con-

tended for by the appellee that because deep 1489
draught steamers find it necessary to take the Main and Gedney Channel course, it is to be assumed that all steamers whose lights indicate that they are coming down the Main Channel are of deep draught, and as such, under the special circumstance, rule entitled to right of way over incoming steamers which are on their own starboard hand. Such may be the custom of the port, but it is not proved to be so in this case. Moreover, whatever doubt as to the character of the outgoing vesssel may arise from 1490
the circumstances that she was in the Main Channel was in this case set at rest as soon as she signalled her intention to take a course which deep-draught vessels could not follow. The authorities cited by appellee giving right of way to a vessel going with the tide do not apply, as these steamers were not navigating in the same channel.

If the *La Champagne* were to navigate under Article 16, the duty of the *Lisbonense* was plain. Article 22 required her to hold her course. After 1491
sighting, but before signaling, the pilot of the *La Champagne*, as above stated, ported a little, thus placing her as much on the right hand side of the channel as was prudent, in view of the set of the tide, the direction of the wind and the other special circumstances. Both vessels thus proceeded on their respective courses, the navigators of *La Champagne* aware of the fact that special circumstances would prevent her manœuvering under the *Lisbonense's* stern by a swing to starboard, and ex- 1492
pecting apparently that the *Lisbonense* would yield *La Champagne* the right of way (she being the larger vessel), possibly by going to port, or by slowing or stopping (as the *Lisbonense* had the tide against her and could keep steerage way at a lower speed) before she reached the course of *La Champagne* through the Main Channel; the navigators

1493 of the *Lisbonense*, ignorant of the special circumstances, and therefore confident that under Article 16 she had the right of way. Unless in some way the navigators of the *Lisbonense* were apprised of the fact that *La Champagne* could not fulfill the obligations of that article, and modified their navigation accordingly, or unless *La Champagne* made some change in her own navigation, collision seemed inevitable; and up to the moment when there was a change of situation, each expected the other to
1494 give way. The initiative was taken by the *Lisbonense*, which sounded a one-blast whistle. Under the situation, as she understood it, her duty was plain—she was to keep her course. The International Rules have provided for no signal whereby a vessel which intends to hold her course shall notify another of that intention. Article 19 provides as follows:

"In taking any course authorized or required by these regulations, a steamship under way may indi-
1495 cate that course to any other ship which she has in sight by the following signals on her steam whistle, namely:

"One short blast to mean: 'I am directing my course to starboard.'

"Two short blasts to mean: 'I am directing my course to port.'

"Three short blasts to mean: 'I am going full speed astern.'

1496 "The use of these signals is optional, but if they are used the course of the ship must be in accordance with the signal made."

Under the act of February 28, 1871 (Sec. 4412 U. S. Rev. Stat.), and its various amendments, the Board of Supervising Inspectors have established regulations to be observed by steam vessels when passing each other in harbors and inland waters,

which include rules for giving signals by blasts of 1497
the steam whistle. "One short blast" and "two short blasts" are among the signals thus provided for, and the giving of such signals when such steam vessels are approaching each other is made compulsory. The meaning of those signals, however, is not the same, as under the International Rules *one short blast* indicates only an intent "to pass to the right or port side of the other;" *two short blasts*, an intent "to pass to the left or starboard of the other," but neither implies *ex necessitate* that such 1498
passing shall be accomplished by any change of course, so that practically, in many cases, the signal simply means "I have the right of way and mean to keep it," or "I waive my right of way and will let you pass ahead of me," or "I ask you to waive your right of way and let me keep on, so as to cross your bows." To these signals the Inspectors' Rules require an answer from the other vessel, assent to the proposed navigation being expressed by a like signal to that received; dissent by an un- 1599
like signal. The International Rules, it will be observed, call for no merely answering signals, and require the vessel giving a signal to alter her course in accordance with the signal made; the Inspectors' Rules provide for answering signals, but do not require that a change of course shall accompany a given signal. Thus, with singular fatuity, it has been provided, by authority competent to regulate the giving of signals by steam vessels bound in and out of seaboard harbors, that the same signal shall 1500
have a different meaning when sounded on one side or the other of a line, which is certainly invisible, and possibly cannot be definitely located except by further legislation. In 1886 attention was called to this unfortunate condition of affairs by the learned District Judge of the Southern District of New York in the case of the *Aurania* and the *Republic*

1501 (29 Fed. Rep., 98); that it adds to the perils of navigation in and out of seaboard harbors is manifest. Certainly there can be required no stronger proof of prudence, care and skill in their profession on the part of those navigators, who, in the face of such indeterminate regulations, have for seven years piloted millions of human lives over the debatable waters which intersect the fair ways from the open ocean to the piers of New York, without some catastrophe so serious as to make the responsibility for
1502 the continuance of such conditions unpleasant to contemplate.

In this particular case, however, both sides concede that the manœuvres attending the collision were had in waters where the International Rules control. It does not appear that the navigators of either ship thought otherwise, but, reading their evidence, it seems impossible to escape the conviction that the habit of navigating under this double set of rules operated to confuse the minds of one, if
1503 not of both pilots, as to their obligations to sound whistles, and as to the meaning of the whistles they did sound. The pilot of the *Lisbonense* testified: "I blew one whistle to let the steamer know I in- "tended to pass ahead of him * * * [that I] had "the right of way," and I understood his answer "of one whistle to mean 'all right.'" In answer to further questions as to the custom among seafaring people in this port, he also testified that when "vessels are crossing two vesssels meeting
1504 "end on almost, the man that wishes to pass to the "starboard side blows one whistle and the other ves- "sel responds with one; that means both vessels "pass to starboard, keep to the right, each vessel to "keep to the right." He added that as he understood the situation he "had the right of way * * * that was why he blew one whistle," so that *La Champagne* should "go clear of him," either by

porting or by "slowing down and giving him a chance, not crowding him." Evidently he sounded his one-blast whistle with the understanding that it meant only what it does, where the Inspector's Rules apply and did not *require* him to direct his course to starboard. The International Rules, however, under which he was navigating, authorized him to blow such whistle only when he was directing his course to starboard under their authority or requirements, but under those very rules, being on the starboard side of *La Champagne*, and not advised of the peculiar circumstances affecting that vessel, he was not authorized to direct his course to starboard, but was, on the contrary, required to keep his course. To have thus changed his course, though a fault under the rules, would probably not have been by itself one contributing to the collision as it would have brought the *Lisbonense* further to the eastward than she would have gone had she kept her course. Having given the one-blast signal, however, the *Lisbonense* was bound by Article 19 to direct her course to starboard, and her failure substantially to make such change was a fault contributing to the collision, because of not so navigating she failed to reach the course of the other vessel as far ahead of her as by her own signal she engaged to do; had she substantially so changed her course the collision would not have happened. We, therefore, concur with the District Judge in holding the *Lisbonense* in fault. 1505 1506 1507

The pilot of *La Champagne* also was apparently confused as to the meaning of the signals he received and gave. He testified: "[the *Lisbonense*] "blowed one whistle signifying she wanted to cross "my bow and pass me on the port hand. I ac "knowledged the signal, which is courtesy * * * "signifying that I understood what he was going "to do. * * * It is the courtesy of captains of 1508

1509 "steamships and steamboats about this harbor al-
"ways to answer a signal given by another ship to let
"them know you understand what they are doing.
"[I] answered for that and no other reason, and
"gave no order because of having answered." He
added that "he thought it was proper for the *Lis-*
"*bonense* to come to port, and that she should have
"given a two-blast signal," still he accepted the
"signal when it was given for courtesy's sake,
"which is the practice of the port." Evidently he
1510 understood the signals as meaning what they do
under the Inspector's Rules, namely, a proposition
from the *Lisbonense* to pass him on his port side,
and an assent by himself to such manœuvre, not ap-
preciating the fact that when *La Champagne* gave
her one-blast signal the nineteenth Article required
him to direct her course to starboard. The Captain
of *La Champagne* testified that he understood the
signal of the *Lisbonense* to signify "I remain on
the right side of the channel," and that *La Cham-*
1511 *pagne's* signal imposed on her the duty of "keep-
ing the right side of the channel." While we are
satisfied that *La Champagne* did keep as far to the
starboard as, under the special circumstances of the
case, she could with prudence, we do not find from
the evidence that, subsequently to the exchange of
signals, she directed her course to starboard, as Ar-
ticle 19 required her to do to keep in accord with her
own announcement of intention. Even if her momen-
tary sheer to starboard took place, as the District
1512 Judge found, after the exchange of whistles, it was
no more a substantial directing of her course to star-
board than was the similar momentary sheer of the
Lisbonense, and in no sense a compliance with the
promise of her signal. Had she directed her course to
starboard the collision would not have happened;
and while we cannot hold her in fault for not doing so
under the special circumstances, we are of the opin-

ion that, knowing of their existence, she was in fault for announcing to a vessel, not possessed of the same knowledge, a change of course which she could not carry out. The *Lisbonense* receiving such an answer to her own whistle was entitled to assume that the vessel giving it was not so affected by special circumstances that she could not manœuvre so as to keep out of the way of the *Lisbonense*, by directing her course to starboard. Even in the sense in which the signals were interpreted by both pilots *La Champagne's* single whistle was a promise not to interfere with the *Lisbonense* crossing her bows, whether by changing her own course to starboard or by checking her speed, and the pilot of *La Champagne* undertook to check her speed even before he gave the signal by ordering the engine to slow, an order which for some unexplained reason was not carried out. Had *La Champagne* conformed her navigation to the promise of her signal, under either interpretation of it, the collision would not have happened. The captain of *La Champagne* testifies that her pilot told him he was on the point of giving a two-blast signal when the *Lisbonense* whistled. Such a signal would have indicated certainly that he was not coming to starboard, that his purpose was to cross the bows of the *Lisbonense*, which under the special circumstances he understood he had the right to do, and to which purpose the navigation of *La Champagne* adhered after the exchange of signals. When he received the one-blast signal from the *Lisbonense* he had the option, either to answer with two blasts, to keep silent, or to answer, as he did, with one. In the first case he would have distinctly advised the *Lisbonense* that despite Article 16 he considered the situation such that *La Champagne* could not keep out of her way; that he did not intend to do so by going to starboard; on the contrary, that he

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1517 was going to sheer to port and thereafter the navigator of the *Lisbonense* would be charged with knowledge that *La Champagne* claimed to be navigating under the Special Circumstance Rule, and expected him to keep out of her way. Had *La Champagne* kept silent, the *Lisbonense* would at least have been warned by that circumstance that there was some uncertainty as to what the former intended to do. But by answering with one blast she announced her intention to do the very thing
1518 she could not do. This was a fault. "Courtesy' might require an answer to a signal, but certainly it did not call for an answer which, under the rules governing her navigation, promised a manœuvre which special circumstances forbade her carrying out.

Irrespective, therefore, of any faults in their subsequent navigation, the collision is to be attributed primarily to the giving by both vessels of signal to the promise of which the navigation of
1519 neither was substantially conformed.

Although the new proofs taken in the Circuit Court have neither altered nor made more certain the conclusions reached upon the apostles, the exception to their admission calls for an expression of opinion from the Court. As to the record of proceedings before the French Consul, so much of it as contains the statements of the master is admissible under the authority of *The Potomac*, 8 Wall., 590. In so far as it contains the state-
1520 ments of others, it would be admissible only in contradiction of testimony given by them in the case at bar, and to which their attention had been called when themselves under examination; the statements before the Consul of all others than the master should therefore be stricken out, and a similar disposition made of the proof as to what appeared on the engine room dial. No one disputed that *La Cham-*

pagne could run at a less speed than 10 knots, and, 1521
even if it were disputed, the dial face was no proof of her possible speed.

The appellant excepted to the exclusion of the following question put to the captain of *La Champagne*: "What information or instruction did you intend the master of the *Lisbonense* to gather from your answer of one whistle to his one whistle?" The exception is unsound; the question was immaterial. The issue was one of negligence in answering the whistle with a single blast. The fact of 1522
what he meant by his answer has nothing to do with that issue. The statute as construed by the Court defines the meaning of the whistle, and in determining whether he was negligent in sounding it, his conduct must be tested by that definition, not by what he intended his signal should mean.

The decree of the District Court is reversed, with costs of this appeal to the appellant, and the cause remanded to that Court for further proceedings in conformity with the decision of this Court. 1523

[Endorsed.] U. S. Circuit Court of Appeals, Second Circuit.—Robert Singlehurst, *et al.*, Libl'ts. and Appellants *v.* La Compagnie Generale Transatlantique, Appellee.—Opinion, Lacombe, J.—United States Circuit Court of Appeals. Filed Dec. 13, 1892. John A. Shields, Clerk. Second Circuit.

1525

LA CHAMPAGNE and LISBONENSE.

WALLACE, C. J.:

When the vessels discovered one another they were about two miles apart, *La Champagne* on a course W. x S., the *Lisbonense* on a course N. W. ⅜ N., the former going at a speed of about twelve knots with the wind and tide, the latter at a speed of about seven and one-half knots, the *La Cham-*
1526 *pagne* having the *Lisbonense* about two points on her starboard bow. At this time the *La Champagne* was about one and one-half miles from the place of collision, and the *Lisbonense* was about one mile. When the vessels had approached to within about a mile of one another, the *Lisbonense* gave *La Champagne* a signal of a single blast of the steam whistle, and altered her course half a point or a point to starboard. *La Champagne's* pilot understood this signal to mean that the *Lis-*
1527 *bonense* proposed to pass across the bows of the *La Champagne*, and he answered the signal by one of a single blast from *La Champagne*; and the pilot of the *Lisbonense* understood the signal of *La Champagne* as an assent to the proposition of the *Lisbonense*. Owing to the conditions of the wind, tide and the channel way, *La Champagne* could not alter her course to starboard. Her pilot knew this when he answered the signal of the *Lisbonense*, and intended to consent to allowing the *Lisbonense*
1528 to pass ahead of *La Champagne*. The master of the *La Champagne*, however, supposed that his own pilot intended *La Champagne* to pass ahead of the *Lisbonense*, and that the *Lisbonense* would give way; and he did not understand the signals as intended to indicate any different movements. After the exchange of signals *La Champagne* proceeded, without changing her course or speed, until the

vessels were about seven hundred yards apart, when 1529
her master seeing that the bearings of the vessels did not change, and that they were drawing rapidly together, so as to render the risk of collision serious, and acting on his own judgment, ordered her engines stopped, and in about twenty seconds ordered them backed. These orders were promptly executed, and at the same time *La Champagne* gave the *Lisbonense* a signal of three blasts of her whistle. The *Lisbonense* in the meantime had kept on at full speed, but altered her course to port, so 1530
as to bring her back upon her course prior to the exchange of signals; and when overlapping the bows of *La Champagne* put her helm hard astarboard to throw her stern further away from *La Champagne*, but the latter struck her about twenty feet forward of the stern.

Somewhat before the exchange of signals, in view of the approach of the *Lisbonense*, the pilot of the *La Champagne* had ordered her engines slowed. By some inadvertence or misunderstanding this 1531
order was not communicated to the engineer, but the pilot was not aware of the omission.

Upon these facts I agree with the conclusion of the majority of the Court, that both vessels were guilty of fault contributing to the collision; but I differ with them in attributing as the fault the failure of each to observe the requirements of Article 19 by directing her course to starboard after having given the other one blast of her steam whistle. Neither pilot supposed that the signals were given 1532
conformably with that article, but each supposed that the signal of the other was one given pursuant to the rules of the Supervising Inspectors. Neither was misled by the signal of the other, but each understood it according to its intended significance.

When the signals were exchanged there was ample time and distance for the vessels to regulate

1533 their respective movements so as to avoid a collision. Under these circumstance, it seems to me quite immaterial that neither directed the course of his vessel conformably with the requirements of the signal of Article 19.

When the vessels discovered each other they were on crossing courses and under the operation of the rule which required the *La Champagne* to avoid the *Lisbonense*, and required the *Lisbonense* to keep her course. At the distance from the intersecting
1534 point in their courses at which each vessel was at the time, if both maintained their respective rates of speed, both would arrive at the intersecting point at substantially the same moment; and this fact must have been obvious to each before signals were exchanged, because during the intervening distance there could not have been any change of the bearings of their respective lights. Thus for some little time before the signals were exchanged the pilot of each vessel was bound to know that the
1535 situation demanded great vigilance, and that any infraction of the rules of navigation on his own part would embarrass the other and might lead to a misunderstanding and precipitate a collision. The situation of the *La Champagne* was such that she could not undertake to fulfil her duty of avoiding the *Lisbonense* by altering her course to the starboard and passing astern of the *Lisbonense;* but this did not absolve her from the duty of avoiding the *Lisbonense* by some other maœuvre, if any other was
1536 practicable. The choice was open to her of altering her course to port, and going across the bows of the *Lisbonense*, if that could be done safely, or of reducing her speed until the *Lisbonense* should pass beyond the point where there was danger of collision. The pilot of the *La Champagne* very prudently ordered her engines slowed to enable her to give way to the *Lisbonense* if he found that to be

the safer way. Apparently before he had fully de- 1537
termined what course to pursue the *Lisbonense* gave a signal of a single blast, and this signal he immediately answered by a like signal. Both pilots understood these signals meant that the *Lisbonense* intended to pass in front of the bows of the *La Champagne*. The fact that these signals were exchanged is persuasive evidence that in the judgment of both pilots at the time that was the preferable way of avoiding a collision in view of the existing situation. After these signals were exchanged *La* 1538
Champagne could not prudently attempt to pass in front of the *Lisbonense*, and the only thing she could do properly, as she could not alter her course to starboard, was to reduce her speed and proceed cautiously until it should appear that the *Lisbonense* had fully passed beyond the point of danger. The *La Champagne* did not reduce her speed. Her pilot probably miscalculated it, supposing his order to slow had been obeyed. If that order had been obeyed, it would not have been necessary to stop 1539
and reverse before the time when the master of *La Champagne* ordered this to be done. As it was, the pilot did not give these orders in due season, and the master found it necessary to interpose and give them himself, taking the responsibility of navigating the vessel. He delayed too long, relying on the judgment of the pilot.

If the *Lisbonense* had not changed her course after the exchange of signals, and *La Champagne* had stopped and backed when she did, the collision 1540
would not have taken place. The change of course by the *Lisbonense* back to port brought the vessels considerably nearer together. It is impossible to determine just when this change of course was made. Her duty was to keep her course until danger of collision had been passed. That duty on her part was as imperative, after the exchange of sig-

1541 nals, as was the duty on the part of *La Champagne* to do all in her power to avoid the *Lisbonense*. If there were any circumstances in the situation which rendered it impracticable for the *Lisbonense* to maintain the course she was on when she gave her signal to the *La Champagne*, she should not have given that signal. It may be believed that if either vessel had done her whole duty pursuant to the rules of navigation, there would not have been a collision; but it cannot be demonstrated that the
1542 failure of either to follow the rules was innocuous. There was but little time for observation of the other by either vessel after the *Lisbonense* made her last change of course to port. Each was then in a situation which was full of peril. All that is manifest is that if *La Champagne* had stopped and backed in season, or if the *Lisbonense* had not, by altering her course to port, brought herself nearer *La Champagne*, the collision would not have occurred.

1543 The case is therefore one for a division of the loss.

(Endorsed) United States Circuit Court of Appeals, Second Circuit, filed Dec. 13, 1892, John A. Shields, Clerk.

1544

1545

UNITED STATES OF AMERICA,
Southern District of New York. } ss.

I, JOHN A. SHIELDS, Clerk of the United States Circuit Court of Appeals for the Second Circuit, do hereby certify, that the foregoing pages, numbered from one to three hundred and eighty-six, inclusive, contain a true and complete transcript of the record and proceedings had in said Court, in the case of Robert Singlehurst, Robert Brocklehurst, George William Brocklehurst, Henry Brocklehurst, Septimus Brocklehurst, Hugh Hathorn Nicholson and Eliza Jane Hillis, Appellants, against La Compagnie Generale Transatlantique, Appellee, as the same remain of record and on file in said office. 1546

In testimony whereof, I have caused the seal of said Court to be hereunto affixed, at the City of New York, in the Southern District of New York, in the Second Circuit, this 1547
[L. S.] seventeenth day of March, in the year of our Lord One thousand eight hundred and ninety-three, and of the Independence of said United States, the One hundred and seventeenth.

JOHN A. SHIELDS.
Clerk.

1548

1309

Office Supreme Court U.S.
FILED
MAR 20 1893
JAMES H. McKENNEY,
CLERK

Supreme Court of the United States,

OCTOBER TERM, 1892.

In the Matter of the Petition

of

LA COMPAGNIE GÉNÉRALE TRANSATLANTIQUE for a Writ of Certiorari to the Circuit Court of Appeals for the Second Circuit.

PETITION AND EXHIBITS.

JONES & GOVIN,
Proctors for Petitioner,
45 Cedar Street,
New York.

EDWARD K. JONES,
Advocate.

LIVINGSTON MIDDLEDITCH CO., Printers, 149-153 Leonard St., N. Y.

SIR:

Please take notice that we shall present the within petition to the Supreme Court of the United States, at a stated Term thereof, to be held at the U. S. Capitol, in the City of Washington, on Monday, the 6th day of March, 1893, at 12 o'clock, M., or as soon thereafter as counsel can be heard.

Dated, New York, March 2nd, 1893.

Yours, &c.,

JONES & GOVIN,
Proctors for Petitioner,
45 Cedar Street,
New York City.

To SIDNEY CHUBB, Esq.,
Proctor for Singlehurst, *et al.*,
16 Exchange Place,
New York City.

5

The petition of LA COMPAGNIE GÉNÉRALE TRANSATLANTIQUE for a writ of certiorari to the Circuit Court of Appeals for the Second Circuit.

To the Honorable,
The Supreme Court of the United States :

Your petitioner, LA COMPAGNIE GÉNÉRALE TRANSATLANTIQUE, presents this its petition for a writ of certiorari to the Circuit Court of Appeals for the Second Circuit, to cause to be certified to this Court for its review and determination the case
6 entitled in that Court, ROBERT SINGLEHURST *et als.*, *cross libellants and appellants*, *against* LA COMPAGNIE GÉNÉRALE TRANSATLALTIQUE, *libellant and appellee*, now pending in the said Circuit Court of Appeals.

The case is one of collision, civil and maritime, and the grounds of this application are briefly :

1.—Because the case is a grave and important one in view of the several novel questions of law involved, and affecting, as they do, the whole maritime commerce of the country ;

2.—Because of the diversity of opinions between the
7 Judges who have passed upon those questions, the District Judge before whom the case was originally heard having taken one view of the law of the case, two of the Judges of the Circuit Court of Appeals having taken another view, and the third Judge of the Circuit Court of Appeals having taken still another view ;

3.—Because the Circuit Court of Appeals, in passing upon some of the questions presented to it, has omitted to follow and give effect to the decisions of the Supreme Court ; and

4.—Because of the large damages involved, your petitioner's damage having been $106,000, and the alleged
8 damage of the other party being $23,500.

In order to present these grounds more particularly your petitioner alleges the following facts :—

First.—That your petitioner is a corporation organized and existing under the laws of the Republic of France, and is engaged in the business of a common carrier between the ports of New York, in the United States, and Havre, France, and

tor that purpose is the owner of a fleet of ocean steamships, among which is the steamship *La Champagne.* 9

Second.—That shortly before daylight in the morning of the 7th day of December, 1890, a collision occurred between the said steamship *La Champagne* and the British steamship *Lisbonense*, which your petitioner is informed and believes is owned by the above named Robert Singlehurst and others, who, as your petitioner is also informed and believes, are British subjects.

Third.—That the facts attending the said collision were as follows:—*La Champagne* had sailed from New York for Havre on the day previously to the collision with a large and valuable cargo and a number of first, second and third class passengers. As she passed down towards sea she encountered a fog which compelled her to stop and anchor near Hoffman's Island in the Lower Bay, where she remained until about 4 o'clock the following morning, when, the weather having meantime cleared up, she resumed her voyage by passing down the channel around the South West Spit into the Main Channel or Bayside Cut, heading for Gedney's Channel, which is the usual course of all steamships of heavy draught leaving the port of New York. After rounding the South West Spit and just before passing the point of Sandy Hook, a red sidelight and a white masthead light were seen bearing about two points on *La Champagne's* starboard bow, which lights were afterward ascertained to be on the *Lisbonense*, then coming up the South Channel and heading for what is known as the Swash Channel. Neither vessel was steering by compass, but the compass course of *La Champagne* was about E. by N., and the course of the *Lisbonense* was about N. W. 1/2 N., so that the courses of the two vessels crossed each other at angles of about 60 degrees at a point about two-thirds the distance between Sandy Hook and the entrance to Gedney's Channel. 10 11

La Champagne is a large full-powered ocean steamer of the first class, 503 feet long, 10,000 tons displacement, and was drawing about 25½ feet of water. The *Lisbonense* is a small steamer 270 feet long and drew not more than 19½ feet. When sighting the *Lisbonense* and until shortly before the collision *La Champagne* was running at "half speed," which gave her a headway through the water of about 10 knots. The *Lisbonense* was running at her "full speed," which gave her a headway through the water of from 9 to 10 knots, and she continued at full speed without slackening or stopping until the collision. A stiff northwest wind was blowing, the tide was 12

13 strong ebb and both were sweeping against the port quarter and port beam diagonally across and off to the starboard bow of the course of *La Champagne*, and these two forces were such that if *La Champagne* had stopped or materially arrested her headway, or changed her heading much to starboard, she would have incurred serious risk of running aground, which at such a place and at that season of the year would probably have resulted in her total loss.

A moment after sighting the *Lisbonense*, and as *La Champagne* passed Sandy Hook, her company's signals were burned, and a signal was also exchanged with the station pilot boat at the Sandy Hook bar, which bore nearly ahead of her. These
14 signals were seen by the navigators of the *Lisbonense*, and plainly denoted to them, had they been watchful and duly regarded the situation, that *La Champagne* was bound out through Gedney's Channel, and that she was probably of such heavy draught as not to be able to go out any other way. The navigators of the *Lisbonense* also knew, or ought to have known, that, from the force and direction of the wind and the set of the tide, *La Champagne* could not port her helm very much without risk of going ashore. They also knew that *La Champagne* was *descending* the channel *with* the tide and wind on her prot quarter, and, therefore, had not free control of her movements whilst the *Lisbonense*, on the contrary, was *ascending* the
15 channel against the tide as well as against the wind, and therefore had full control of her movements. Yet with these conditions apparent, and which placed *La Champagne* under the operation of the 23d Article of Navigation providing for special circumstances, the *Lisbonense*, in violation of the 15th Article of Navigation which permitted her to port her helm only in case she was the meeting "end on or nearly end on," and without regard to the provision of Article 19, which allows a helm signal only when taking a course "*authorized or required by the regulations*," and in violation of the 22d Article, which required her to keep her course if she relied upon *La Champagne* to keep out of her
16 way, improperly and wrongfully, and without justification or excuse, gave a single blast of her whistle, indicating, under Article 19, that "I am directing my course to starboard." This signal was answered by *La Champagne* by a like blast of her whistle to indicate that the *Lisbonense's* whistle had been heard, and that *La Champagne* understood what she intended to do. The two ships were then at least one mile apart. Before the *Lisbonense* blew her whistle *La Champagne* was about to give two blasts of her whistle and steer to port in order to enable the *Lisbonense*, if she so desired, to come up

on the starboard side, and astern of *La Champagne*, but upon this exchange of whistles, she ported her helm and changed her head to starboard three or four degrees, and probably more on account of the wind and tide, which change of heading was as much as she could safely effect in the conditions of wind, tide and surrounding depths of water then prevailing, and after that she continued on the south side of the channel, still carefully watching the *Lisbonense*, until the two ships came within a distance of each other variously estimated at from 600 yards to 1,000 meters, when, seeing that the *Lisbonense* neither slackened her speed, nor stopped, nor changed her course, nor did anything to avert danger, *La Champagne* stopped and reversed her engines full speed astern, indicating this by three blasts of her steam whistle. 17 18

The statements of the navigators of *both* vessels agree that *real danger of collision did not arise until this time.* It is, however, conceded on both sides that there was *then* real danger of a collision. In this situation and condition of things it was the duty of the *Lisbonense*, under the 18th article of navigation, to slacken her speed, or stop and reverse, if necessary, but she wholly failed to perform this duty. On the contrary, she kept on at full speed and, by porting her helm so as to change her course four or five points to starboard, also threw herself across the course of *La Champagne* at about right angles. In this relative position, and before *La Champagne's* headway could be fully arrested, the two ships collided, the stem of *La Champagne* striking the port quarter of the *Lisbonense* about 20 feet from the stern, penetrating about two feet into the side of the latter, by which the stem and port bow of *La Champagne* were torn out and carried away, and the side of the *Lisbonense* was also considerably damaged above the water line. 19

After the collision the *Lisbonense* disappeared without "standing by" as she was obliged by law to do, but *La Champagne* fortunately fouled a buoy at one end, and having the assistance of a tug at the other, was able in this way to hold herself against the tide and thus save herself from drifting ashore whilst she turned around and returned to New York. 20

The place of collision was in the Main Channel or Bayside Cut at its junction with the Swash and South Channels. The time between sighting the *Lisbonense* and the collision was about 10 minutes.

Fourth.—That after the collision, and on the 19th day of December, 1890, your petitioner filed a libel in the District

21 Court of the United States for the Southern District of New York against the said steamship *Lisbonense*, charging her with the whole blame for the said collision, and claiming damages in the sum of $106,000 in which cause the owners of the *Lisbonense* afterwards filed a cross-libel making the same charge against *La Champagne*, and claiming damages in the sum of $23,500; and that such proceedings were thereafter had in the said cause that, on the 3d day of July, 1891, the Judge of the said District Court handed down an opinion in which he held the *Lisbonense* wholly in fault and found *La Champagne* without fault, and directed the entry of decrees sustaining the libel of your petitioner, and dismissing the cross-libel of the owners
22 of the *Lisbonense*.

Fifth.—That the facts as established plainly led to the conclusion of the District Judge that the *Lisbonense* was wholly at fault for the said collision, because, among other things,

(1.) *La Champagne* was in a situation of special circumstances contemplated by rule 23 of the articles of navigation, by reason of her heavy draught, great length, and the condition of the wind and tide and the nearness of shoals, which rendered it impossible for her to perform what would otherwise have been her primary duty to keep out of the way; and these facts were obvious
23 to the navigators of the *Lisbonense*, or such at least as to put them upon inquiry and impose the duty of great caution.

(2.) As *La Champagne* was *descending* the channel *with* the tide, and as the *Lisbonense* was *ascending against* the tide, it was the duty of the latter to stop and let *La Champagne* pass out in safety.

(3.) Independently of the circumstances surrounding the navigation of *La Champagne*, and independently of the fact that she was descending the channel with the tide, the *Lisbonense*, by sounding her whistle indicating
24 that she would go to starboard and pass ahead, *elected to take the situation in her own hands* and thereby *relieved La Champagne* of what, under other conditions, would have been her primary duty to keep out of the way.

(4.) The *Lisbonense*, by her reckless, persistent and wholly uncalled for attempt to cross the course of *La Champagne*, *brought about the situation of danger* which afterwards resulted in the collision.

(5.) The *Lisbonense* also violated article 15 of the International Rules by giving notice that she intended to

port her helm and cross the bows of *La Champagne* in order to pass her on the port side, because the said article permits this manœuvre only in case two ships are *meeting* "*end on or nearly end on.*" 25

(6.) The *Lisbonense*, by giving notice of her intention to go to starboard, also violated article 22, if, as her navigators and counsel pretended, she relied on *La Champagne* to keep out of the way; for the latter article provides that when one ship is to keep out of the way, "*the other is to keep her course.*"

(7.) The *Lisbonense did not in fact go to starboard as her signal indicated*, but after a momentary change resumed the same course, and in this respect violated article 19 which provides that signals indicating course, are optional, but if given, "*the course of the ship must be in accordance with the signal made.*" 26

(8.) Even after committing the above-mentioned faults, the *Lisbonense* was still further in fault for *not stopping and reversing*, as *La Champagne* did, when danger of collision arose, and in this respect the *Lisbonense* violated Article 18 of the Regulations, which provides that "every steamship when approaching another ship so as to involve risk of collision *shall slacken her speed and stop and reverse, if necessary.*" 27

(9.) *La Champagne*, notwithstanding her peril of running ashore, *seasonably stopped and reversed;* and her action in this particular would have wholly saved the collision had the *Lisbonense* gone to starboard as her signal indicated; for, in that case, she would have been not only *far ahead* and to the *eastward* of *La Champagne*, but also *further distant from the line of La Champagne's course.*

(10.) Had the *Lisbonense* stopped and reversed when *La Champagne* did so, and as *Lisbonense* was bound to do, the collision would *even then* have been avoided.

(11.) The only duty resting upon *La Champagne* under the circumstances was caution and observation, and, when danger of collision arose, to stop and reverse in accordance with article 18, *all of which she duly and seasonably performed.* 28

(12.) The conduct of the *Lisbonense* in running away after the collision was reprehensible to such a degree, that by the established law, both British and American, the collision must be presumed to have been caused by her wrongful act, neglect, or default.

29 In other words, it was apparent, and your petitioner respectfully avers that *the Lisbonense violated every article of navigation, and every rule of good seamanship which could possibly be invoked as applicable to the situation;* whilst the navigation of *La Champagne*, under the circumstances, was *in every way regular and proper and free from fault.*

Sixth.—That the District Judge in his opinion expressly assigned most of the grounds above enumerated as faults of the *Lisbonense.* A copy of the opinion is hereunto annexed and marked Exhibit No. 1.

30 *Seventh.*—That two several decrees were thereupon entered in the said District Court, one ordering it to be referred to a Commissioner to ascertain and report the damages sustained by your petitioner as the owner of *La Champagne*, and the other dismissing the cross-libel of the owners of the *Lisbonense*, from the latter of which they subsequently appealed to the Circuit Court of Appeals for the Second Circuit.

Eighth.—That the said appeal afterwards came on for argument in the said Circuit Court of Appeals on the 1st day of November, 1892, and was duly argued, and that the said Court thereafter, and on or about the 13th day of Decem-
31 ber, 1892, rendered its decision in two separate opinions, copies of which are hereunto annexed and marked respectively Exhibit No. 2 and Exhibit No. 3, in one of which (prepared by Judge Lacombe and concurred in by Judge Shipman) two of the Judges agreed. The other opinion is that of Judge Wallace, in which he dissents from the views expressed by the majority of the Court, but, upon other grounds, concurs in the result. By these opinions the Circuit Court of Appeals holds *both* vessels in fault, and directs the entry of a decree reversing the said decree of the said District Court, with costs, and ordering the entry of a final decree by the latter dividing the damages.

32 *Ninth.*—That the substance and general effect of the said opinion of two of the said Judges of the said Circuit Court of Appeals in a concurrence with the said District Judge in his findings of fact and in his conclusions as to the faulty navigation of the *Lisbonense* prior to the time when *La Champagne* stopped and reversed, but expressing the further opinion that *La Champagne* was also in fault for *answering* the whistle of the *Lisbonense;* that by answering the *Lisbonense's* signal *La*

Champagne should have also gone to starboard; and concluding, 33
against the clear and explicit testimony in the case to the contrary, that whilst *La Champagne did, in fact, port and go to starboard, so far as she could safely do so,* such porting occurred and was complete *before* she blew her answering whistle, but that whether that was so or not, she should not have answered unless she was able to go freely to starboard without limit or embarrassment.

Tenth.—That the substance and general effect of the separate opinion of Judge Wallace is (1) that under the circumstances of the case it was immaterial whether or not *either* vessel ported; but (2) that *La Champagne* (though it appeared that 34
she was proceeding at *half speed* from the time of sighting the *Lisbonense* until she stopped and reversed), was at fault for *not further reducing her speed,* because it appeared in a part of the testimony that the pilot of the *La Champagne* stated that *before* the *Lisbonense* whistled he ordered the engineer of *La Champagne* to "slow;" and (3) that the respective pilots of the two steamers, in the opinion of the judge, were, in fact, acting under the local rules of the Supervising Inspectors of Steamboats, instead of the International Rules, and that by the local Inspectors' Rules *both* vessels, by the signals given and answered, were bound so to manoeuvre as to permit the *Lisbonense* to cross *La Champagne's* bows and pass on her port 35
side.

Eleventh.—And your petitioner further shows from the foregoing statement, that it is apparent that a number of new and important questions of general and impressive concern in navigation, especially as to the navigation to be pursued in entering and leaving harbors in the United States, arise in this case, which, in order to settle the law and secure uniformity in its administration, it is generally desirable (especially in view of the fact that fully nine-tenths of the commerce of the United States is carried on in ships passing the place of this collision), to have definitely and finally decided by the Supreme Court 36
of the United States. Besides the points hereinbefore enumerated as arising in this case, your petitioner enumerates the following additional questions as especially important and as entirely new:

(1.) It is a question as to whether or not the act adopting the International Rules, which provides that the same shall be applicable "upon the high seas and in all *coast* waters of the United States," extends their

37 operation to the place of the said collision. In other words, whether or not waters not enclosed by headlands, but which have to be navigated with reference to channels and shoals, are "*harbors*" or "*inland navigation*" within the intent and meaning of the act, and, therefore, not subject to the operation of such rules; or whether the same are "*coast*" waters within the meaning of the act, and, therefore, subject to the rules.

(2.) It is furthermore a question whether or not, if the International Rules were applicable to the place of this collision, any other system of navigation can be invoked to determine this controversy and other contro-
38 versies of the same kind, as was done by Judge Wallace in his opinion.

(3.) It is also a question in the case, whether or not the said two ships being foreign vessels, and the Supervising Inspectors' Rules being expressly limited in their operation to vessels of the United States, the navigation of such vessels can in any case be determined according to the Supervising Inspectors' Rules.

(4.) It is also a question whether or not an answering signal to one given under Article 19 of the Rules is an undertaking on the part of the answering vessel to do
39 the *same* thing or perform the *same* manoeuvre as the vessel taking the initiative; or whether or not, as has been frequently decided in the District Courts with respect to similar signals under the Inspectors' Rules, and as testified to in this case to be the fact and custom with respect to navigation at the place of this collision, such answering signal merely denotes that the answering vessel has *heard* the other's signal and *understands what she intends* at her own risk *to do*, and merely undertakes *to do nothing to embarrass her* in her proposed manoeuvre, and which she is understood to take *upon her own responsibility and at her own risk*.

40 (5.) It is furthermore a question whether or not, even if the case can be judged by the Inspectors' Rules, the answering signal of *La Champagne* denoted otherwise than, as has been frequently decided in the District Courts, and as testified to in the present case, that *La Champagne* understood what the *Lisbonense* intended to do, and that she understood the manœuvre to be at the risk of the *Lisbonense*, and promised merely to do nothing to impede her in the attempt;

or whether such answering signal denoted that *La Champagne* would perform the *same* manœuvre and *actively co operate* to the accomplishment of the other vessel's step. 41

(6). It is furthermore a question as to whether or not the rule laid down by this Court in the case of the *Galatea* (92 U. S., 439), namely that "where two steamers about to meet are running, one *with* the tide and the other *against* the tide, if it should be necessary that one or the other should stop, in order to avoid collision, the one proceeding *against* the tide should stop." as the latter *can control her movements* and the other *cannot*, applies only to vessels strictly considered in the *same* channel, or whether, as in this case, it also extends to vessels in different channels nommally, but which, in fact, *converge*, *run into and unite* with each other, and are subject to the *same movements of the tide*. In the opinion of the majority of the judges of the Circuit Court of Appeals this rule is held *not* to apply to such channel. 42

Thirteenth.—And your petitioner further shows that besides the above-mentioned new and and important questions of navigation of general public interest involved in this case, the decision of the said Circuit Court of Appeals is plainly wrong, and the judges thereof are manifestly in error in their utter disregard of well established rules of law and of navigation, among which your petitioner enumerates the following: 43

(1). The said Court utterly disregards, and is manifestly in error in not applying, the rule that a ship which, by her own imprudent and wrongful action, *brings about a dangerous situation* which ultimately results in collision (as was the fact with respect to the *Lisbonense*), shall be held solely responsible for the consequence.

(2). That said Court also utterly disregards, and is manifestly in error in not applying the rule that, conceding that one vessel may have committed faults previously to the time when collision may still be avoided, yet, if when the collision may still be avoided, she then manœuvre properly, and the other does not, she may, neverthless, recover full damages; in the light of which rule, even admitting that *La Champagne* committed the faults ascribed to her by the Judges of the Circuit Court of Appeals, yet as she stopped and reversed when col- 44

45 lision could have been avoided, and as the *Lisbonense* did not do this, but rushed on and precipitated the collision, *La Champagne* should be absolutely excused and the *Lisbonense* solely condemned.

(3). *La Champagne*, when she sighted the *Lisbonense*, was already running at "*half speed.*" The *Lisbonense* was running at "*full speed,*" and continued to do so up to the very moment of collision. The weather was perfectly clear and the lights of the two vessels were plainly visible. And yet one of the Judges of the said Circuit Court of Appeals finds *La Champagne* in fault for not *further*
46 reducing her speed at *that* time, and *long before danger of collision arose*, as admitted by both vessels, in utter disregard of the clearly established rule to the contrary, as declared by this Court in the case of the "Free State" (91 U. S., 200; S. C. Brown's Ad. Reps., 251), and in numerous other cases.

(4.) The case establishes beyond doubt or even contradiction that when *La Champagne* stopped and reversed that manœuvre would have of itself avoided the collision, had the *Lisbonense* been on the course to starboard indicated by her whistle; and yet the Court below
47 holds *La Champagne* partly in fault, and thereby absolutely ignores the rule that, whatever may have occurred prior to that time, if one of two vessels stops and reverses in season to avoid collision, if the other vessel had performed her duty, the vessel so stopping and reversing will not be held in fault.

(5.) When the two steamers came to a distance from each other variously estimated at from 800 yards to 1,000 meters, and when, as the evidence on both sides shows, collision was first apprehended, and when the collision could still have been easily avoided by both vessels stopping and reversing, or by the "*Lisbonense*
48 starboarding her helm and passing astern of *La Champagne* whether *La Champagne* reversed or not, the latter performed her duty by stopping and reversing, whilst the *Lisbonense* kept on at full speed and *ported* her helm with the result of more certainly throwing herself across the course of *La Champagne*, which acts of the *Lisbonense* were not only a violation of the express provisions of the International Rules and also obviously opposed to cautious and prudent navigation,

but were really the *proximate cause of the collision*, 49
yet the Circuit Court of Appeals holds *La Champagne* also in fault and divides the damages, in utter disregard of the rule established in numerous cases to the effect that if at any time before collision one vessel seasonably stops and reverses, and if the collision may then be avoided by the other doing likewise or performing any other manœuvre open to her, and she omits to do so, she must be held solely in fault.

Fourteenth.—And your petitioner further shows that the said Circuit Court of Appeals was absolutely and manifestly in error in finding, contrary to the finding of the District Judge, 50
and against the clear and undisputed evidence in the case, that when *La Champagne* gave her answering signal to the *Lisbonense* the former had already completed her manoeuvre to starboard.

Fifteenth.—And your petitioner further shows that the said Circuit Court of Appeals on the hearing of the said appeal, accepted, received and considered againt the objection of your petitioner's counsel (though the Judges gave it no weight as changing or affecting the case in any way), the record of the report of the said collision made by the commander of *La Champagne* to, and as taken down by, the French Consul at New York, as evi- 51
dence in the said cause, and which, though accessible to, and in the possession of, the appellant in the District Court, was first brought forward in the said Circuit Court of Appeals; and that the ground upon which the said report was received by the said Circuit Court of Appeals was that the same was the Captain's *protest*, and as such it was of itself admissible in evidence without calling the Captain; which action your petitioner alleges is opposed to the clearly established rule (1.) that such a record is never admissible at all, and (2.), if regarded as a protest, the same is not admissible without first calling the witness, unless it be shown that the Captain is dead, out of reach, or other special circumstances exist to make it admissi- 52
ble as secondary evidence. That whilst your petitioner is indifferent as to whether or not the said paper is admitted or not, so far as its merits and bearing upon the present case were concerned, and although the Judges of the said Circuit Court of Appeals did not consider it as affecting the case in any way, yet your petitioner respectfully submits that the action of the said Circuit Court of Appeals in admitting the same is an innovation upon the law of evidence, and establishes a dangerous precedent for the future.